

# User Manual

## H32B H40B

The colour and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

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## Copyright

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- An administration fee may be charged if either
  - (a) an engineer is called out at your request and there is no defect in the product (i.e. where you have failed to read this user manual).
  - (b) you bring the unit to a repair centre and there is no defect in the product (i.e. where you have failed to read this user manual).
- The amount of such administration charge will be advised to you before any work or home visit is carried out.



# Before Using the Product

## Important Warranty Information Regarding Television Format Viewing

- 1 Functionalities related to Digital TV (DVB) are only available in countries/areas where DVB-T (MPEG2 and MPEG4 AVC) digital terrestrial signals are broadcasted or where you are able to access to a compatible DVB-C (MPEG2 and MPEG4 AAC) cable-TV service. Please check with your local dealer the possibility to receive DVB-T or DVB-C signal.
- 2 DVB-T is the DVB European consortium standard for the broadcast transmission of digital terrestrial television and DVB-C is that for the broadcast transmission of digital TV over cable. However, some differentiated features like EPG (Electric Programme Guide), VOD (Video On Demand) and so on, are not included in this specification. So, they cannot be workable at this moment.
- 3 Although this product meets the latest DVB-T and DVB-C standards, as of [August, 2008], the compatibility with future DVB-T digital terrestrial and DVB-C digital cable broadcasts cannot be guaranteed.
- 4 Depending on the countries/areas where this product is used, some cable-TV providers may charge an additional fee for such a service and you may be required to agree to terms and conditions of their business.
- 5 Some Digital TV functions might be unavailable in some countries or regions and DVB-C might not work correctly with some cable service providers.
- 6 For more information, please contact your local Samsung customer care centre.



The reception quality of this product may be affected due to differences in broadcasting method between the countries. Please check the product performance in the local SAMSUNG Authorized Dealer, or the Samsung Call Centre whether it can be improved by reconfiguring product setting or not.

# Before Using the Product

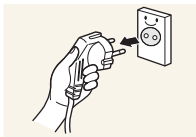
## Cleaning

Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.

Take the following steps when cleaning.



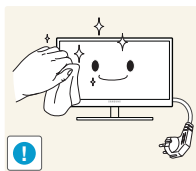
The following images are for reference only. Real-life situations may differ from what is shown in the images.



1. Power off the product and computer.
2. Disconnect the power cord from the product.



Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.



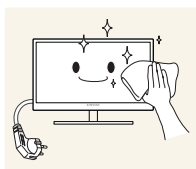
3. Wipe the product with a clean, soft and dry cloth.



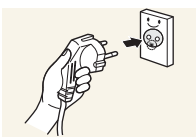
- Do not use detergents that contain alcohol, solvent or surface-active agents.



- Do not spray water or detergent directly on the product.



4. Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the product.



5. Connect the power cord to the product when cleaning is finished.
6. Power on the product and computer.

## Storage

High-glossy models can develop white stains on the surface if an ultrasonic wave humidifier is used nearby.





Contact Customer Service Centre if the inside of the product needs cleaning (service fee will be charged).





# Before Using the Product

## Safety Precautions

Caution
RISK OF ELECTRIC SHOCK DO NOT OPEN
Caution : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

	This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.
	This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

## Symbols

 Warning	A serious or fatal injury may result if instructions are not followed.
 Caution	Personal injury or damage to properties may result if instructions are not followed.
	Activities marked by this symbol are prohibited.
	Instructions marked by this symbol must be followed.

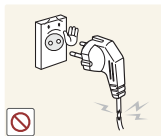
# Before Using the Product

## Electricity and Safety



The following images are for reference only. Real-life situations may differ from what is shown in the images.

### Warning



Do not use a damaged power cord or plug, or a loose power socket.

- An electric shock or fire may result.

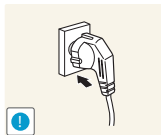


Do not use multiple products with a single power socket.

- Overheated power sockets may cause a fire.

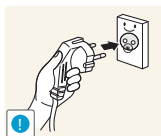


Do not touch the power plug with wet hands. Otherwise, an electric shock may result.



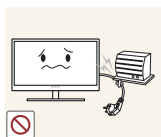
Insert the power plug all the way in so it is not loose.

- An unsecure connection may cause a fire.



Connect the power plug to a grounded power socket (type 1 insulated devices only).

- An electric shock or injury may result.



Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.

- Damage to the cord may result in a fire or electric shock.



Do not place the power cord or product near heat sources.

- A fire or electric shock may result.



Clean any dust around the pins of the power plug or the power socket with a dry cloth.

- A fire may result.

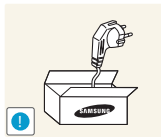
# Before Using the Product

## Caution



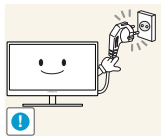
Do not disconnect the power cord while the product is being used.

- The product may become damaged by an electric shock.



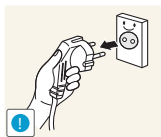
Only use the power cord provided with your product by Samsung. Do not use the power cord with other products.

- A fire or electric shock may result.



Keep the power socket where the power cord is connected unobstructed.

- The power cord must be disconnected to cut off power to the product when an issue occurs.
- Note that the product is not completely powered down by using only the power button on the remote.

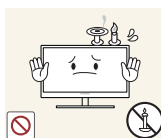


Hold the plug when disconnecting the power cord from the power socket.

- An electric shock or fire may result.

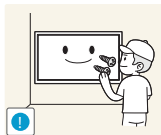
## Installation

## Warning



DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.

- A fire may result.



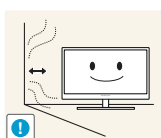
Have a technician install the wall-mount hanger.

- Installation by an unqualified person can result in an injury.
- Only use approved cabinets.



Do not install the product in poorly ventilated spaces such as a bookcase or closet.

- An increased internal temperature may cause a fire.



Install the product at least 10cm away from the wall to allow ventilation.

- An increased internal temperature may cause a fire.

# Before Using the Product



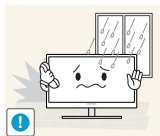
Keep the plastic packaging out of the reach of children.

- Children may suffocate.



Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.)

- The product may fall and become damaged and/or cause an injury.
- Using the product in an area with excess vibration may damage the product or cause a fire.



Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.

- A fire or electric shock may result.



Do not expose the product to direct sunlight, heat, or a hot object such as a stove.

- The product lifespan may be reduced or a fire may result.



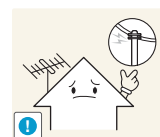
Do not install the product within the reach of young children.

- The product may fall and injure children.
- As the front is heavy, install the product on a flat and stable surface.



Bend and keep part of the outdoor TV antenna cable hanging downwards (the part inside the room) to prevent rainwater from entering the product.

- If rainwater enters the product, a fire or electric shock can occur.



When using an outdoor antenna, be sure to install the antenna away from nearby power lines to prevent the antenna from collapsing onto them in strong winds.

- A collapsed antenna can cause an electric shock or injury.



Edible oil, such as soybean oil, can damage or deform the product. Do not install the product in a kitchen or near a kitchen counter.

# Before Using the Product

## Caution



Do not drop the product while moving.

- Product failure or personal injury may result.



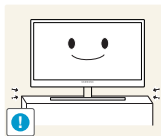
Do not set down the product on its front.

- The screen may become damaged.



When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.

- The product may fall and become damaged and/or cause an injury.
- Install the product only on cabinets or shelves of the right size.



Set down the product gently

- Product failure or personal injury may result.



Installing the product in an unusual place (a place exposed to a lot of fine particles, chemical substances or extreme temperatures, or an airport or train station where the product should operate continuously for an extended period of time) may seriously affect its performance.

- Be sure to consult Samsung Customer Service Centre if you want to install the product at such a place.

## Operation

## Warning



There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.

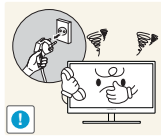
- A fire or electric shock may result.
- Contact Samsung Customer Service Centre for repairs.



Before moving the product, turn off the power switch and disconnect the power cable and all other connected cables.

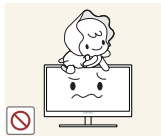
- Damage to the cord may result in a fire or electric shock.

# Before Using the Product



If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Centre.

- An electric shock or fire may result.



Do not let children hang from the product or climb on top of it.

- Children may become injured or seriously harmed.



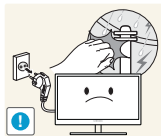
If the product is dropped or the outer case is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Centre.

- Continued use can result in a fire or electric shock.



Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.

- The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.



During a lightning or thunderstorm, power off the product and remove the power cable.

- A fire or electric shock may result.



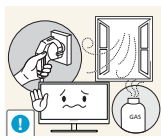
Do not drop objects on the product or apply impact.

- A fire or electric shock may result.



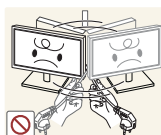
Do not move the product by pulling the power cord or any cable.

- Product failure, an electric shock or fire may result from a damaged cable.



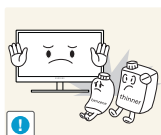
If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

- Sparks can cause an explosion or fire.



Do not lift or move the product by pulling the power cord or any cable.

- Product failure, an electric shock or fire may result from a damaged cable.



Do not use or keep combustible spray or an inflammable substance near the product.

- An explosion or fire may result.



# Before Using the Product



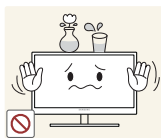
Ensure the vents are not blocked by tablecloths or curtains.

- An increased internal temperature may cause a fire.



Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).

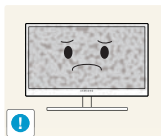
- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.



Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.

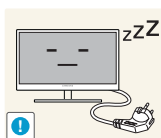
- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.

## **Caution**



Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.

- Activate power-saving mode or a moving-picture screen saver if you will not be using the product for an extended period of time.



Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).

- Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.



Use the product at the recommended resolution and frequency.

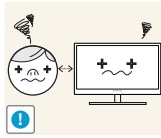
- Your eyesight may deteriorate.



Do not hold the product upside-down or move it by holding the stand.

- The product may fall and become damaged or cause an injury.

# Before Using the Product

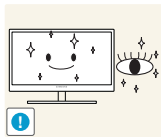


Looking at the screen too close for an extended period of time can deteriorate your eyesight.



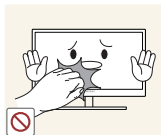
Do not use humidifiers or stoves around the product.

- A fire or electric shock may result.

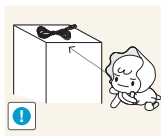


Rest your eyes for more than 5 minutes for every 1 hour of product use.

- Eye fatigue will be relieved.



Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.

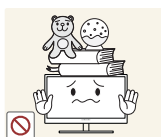


Store small accessories out of the reach of children.



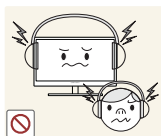
Exercise caution when adjusting the product angle or stand height.

- Your hand or finger may get stuck and injured.
- Tilting the product at an excessive angle may cause the product to fall and an injury may result.



Do not place heavy objects on the product.

- Product failure or personal injury may result.



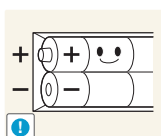
When using headphones or earphones, do not turn the volume too high.

- Having the sound too loud may damage your hearing.



Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

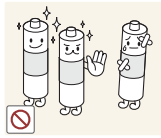
- If children have had the battery in their mouths, consult your doctor immediately.



When replacing the battery, insert it with the right polarity (+, -).

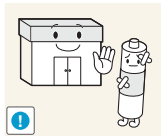
- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.

# Before Using the Product



Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.

- Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.



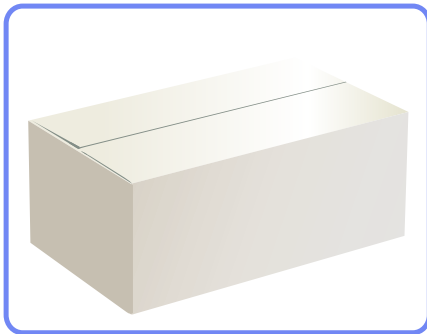
The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

- The customer can return used or rechargeable batteries to a nearby public recycling Centre or to a store selling the same type of the battery or rechargeable battery.

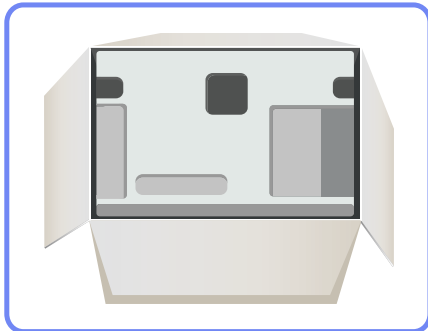
## 1.1 Checking the Contents

### 1.1.1 Removing the Packaging

- 1 Open the packaging box. Be careful not to damage the product when you open the packaging with a sharp instrument.



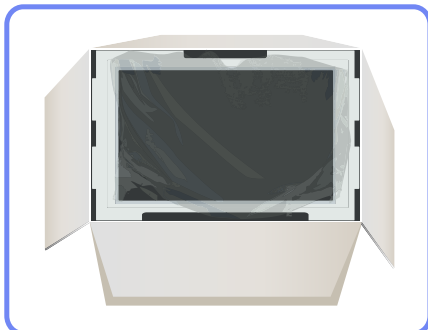
- 2 Remove the styrofoam from the product.



- 3 Check the components and remove the styrofoam and plastic bag.



- The appearance of actual components may differ from the image shown.
- This image is for reference only.



- 4 Store the box in a dry area so that it can be used when moving the product in the future.

## 1.1.2 Checking the Components



- Contact the vendor where you purchased the product if any components are missing.
- The appearance of the components and items sold separately may differ from the image shown.

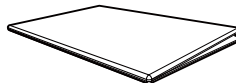
### Components



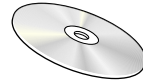
Components may differ in different locations.



Quick setup guide



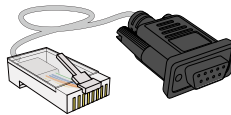
Warranty card  
(Not available in some  
locations)



User manual



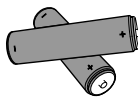
Power cable



RS232C Adapter



Remote Control



Batteries  
(Not available in some  
locations)

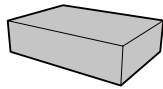


Holder wire stand

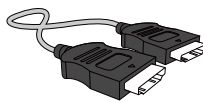
## Items sold separately



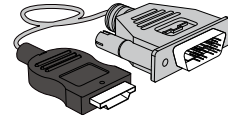
The following items can be purchased at your nearest retailer.



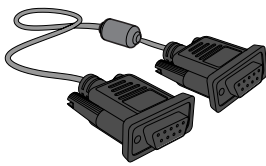
Wall-mount KIT



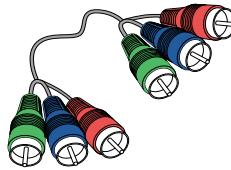
HDMI cable



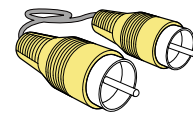
HDMI-DVI cable



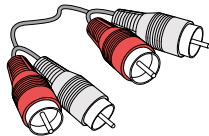
RS232C cable



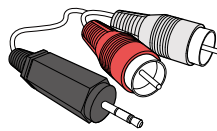
Component cable



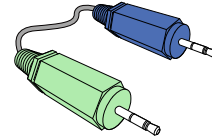
AV cable



RCA cable



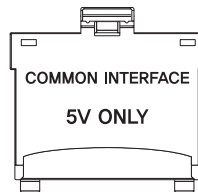
RCA Stereo cable



Stereo cable



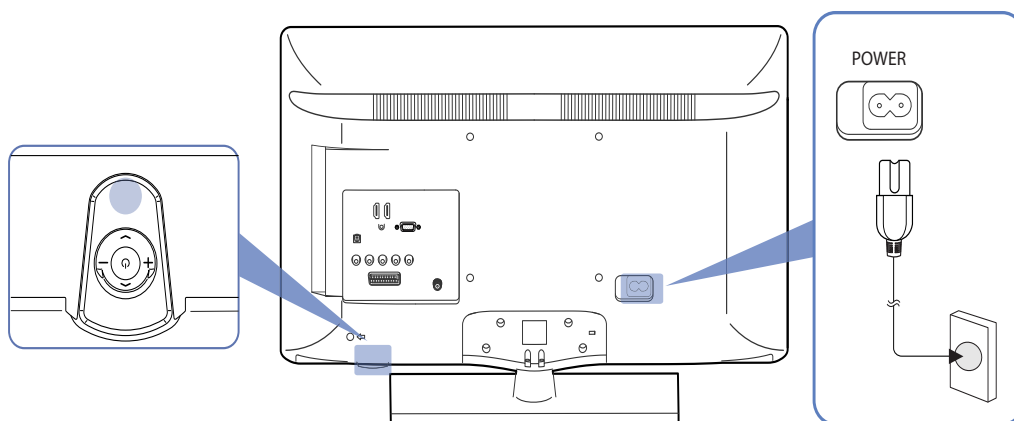
SCART cable

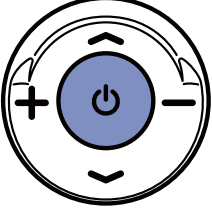

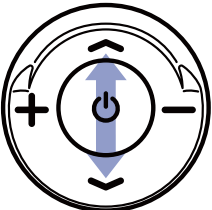

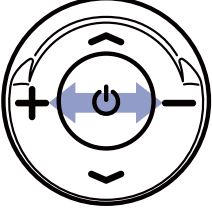

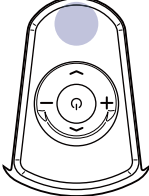


CI Card Adapter

## 1.2 Parts

### 1.2.1 Control Panel



Location	Description
	<p>Power on the product.</p> <p>If you press the [⏻] button when the product is turned on, the control menu will be displayed.</p> <p> To exit the OSD menu, press and hold the panel key for at least one second.</p>
	<p>Move to the upper or lower menu. You can also adjust the value of an option.</p> <p> In <b>TV</b> mode, you can change the channel by moving the panel key up or down when the control menu is not displayed.</p>
	<p>Move to the left or right menu.</p> <p> You can adjust the volume by moving the panel key left or right when the control menu is not displayed.</p>
	<p>Remote sensor</p> <p>To control the remote control in front of the product, lower the remote control sensor in the direction of the arrow.</p>












The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

### Control menu



If you press the [⏻] button on the panel key ("1.2 Parts") when the product is turned on, the control menu will be displayed.



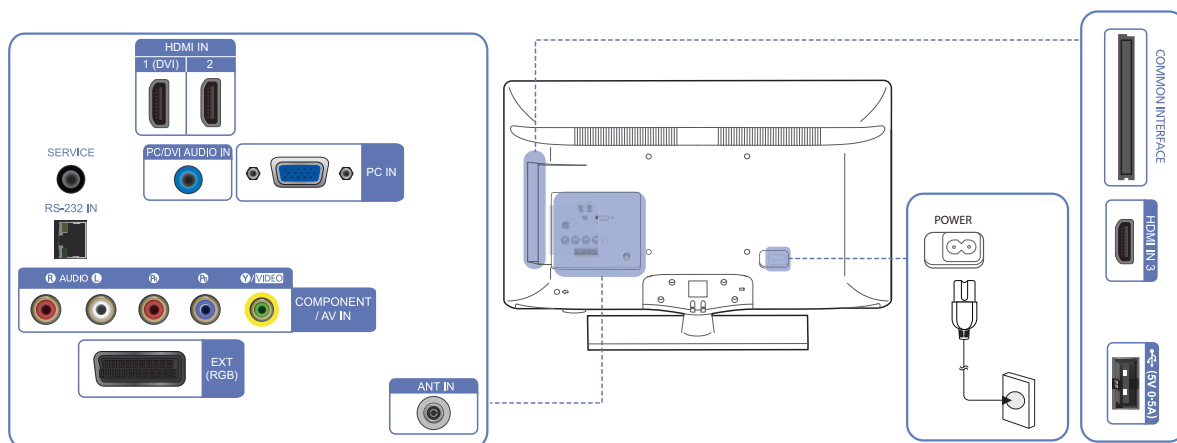
Icons	Description
	Select the connected input source. Move the panel key right to select <b>Source</b> [  ] in the control menu. When the list of input sources is displayed, move the panel key up or down to select the desired input source. Next, press the panel key.
	Display the OSD menu. Move the panel key left to select menu [  ] in the control menu. The OSD control screen will appear. Move the panel key right to select the desired menu. You can select a sub-menu item by moving the panel key up, down, left, or right. To change settings, select the desired menu and press the panel key.
	Enter <b>Contents Home</b> mode. Move the panel key up to select <b>Contents Home</b> [  ] in the control menu.
	Power off the product. Move the panel key down to select <b>Power off</b> [  ] in the control menu. Next, press the panel key.
	Exit the control menu.



## 1.2.2 Reverse Side

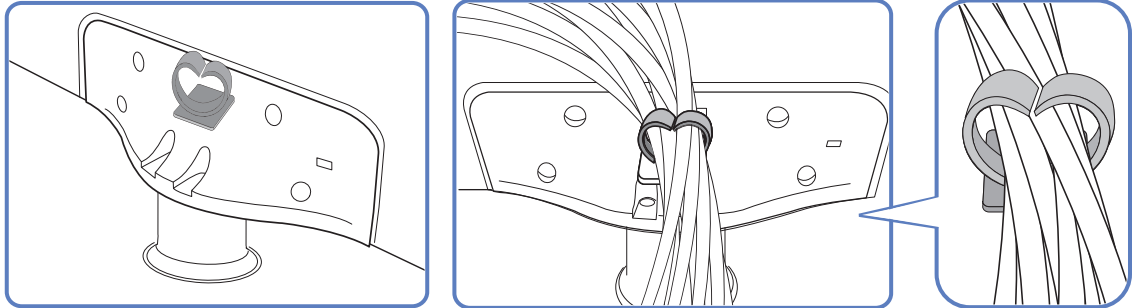


The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
[HDMI IN 1 (DVI)]	Connects to a source device using an HDMI-DVI cable.
[HDMI IN 2], [HDMI IN 3]	Connects to a source device using an HDMI cable.
[SERVICE]	Connector for service only.
[PC / DVI AUDIO IN]	Receives sound from a PC via an audio cable.
[PC IN]	Connects to a source device using a D-SUB cable.
[RS-232 IN]	Connects to a source device using an RS232C cable.
[R-AUDIO-L]	Connects to the audio output port on a source device through an RCA cable.
[COMPONENT / AV IN]	Connects to a source device using the AV/component cable.
[EXT (RGB)]	Connect to a SCART cable.
[ANT IN]	Connect to an Antenna cable.
[COMMON INTERFACE]	Common Interface Slot.
[USB (5V 0.5A)]	Connect to a USB memory device.

## Assembling the Holder-Wire

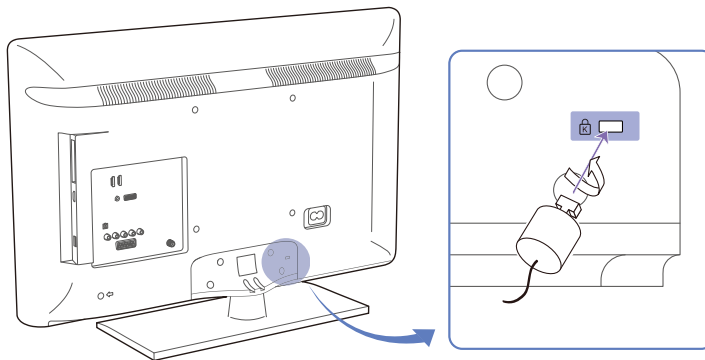


### 1.2.3 Anti-theft Lock



- An anti-theft lock allows you to use the product securely even in public places.
- The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.

To lock an anti-theft locking device

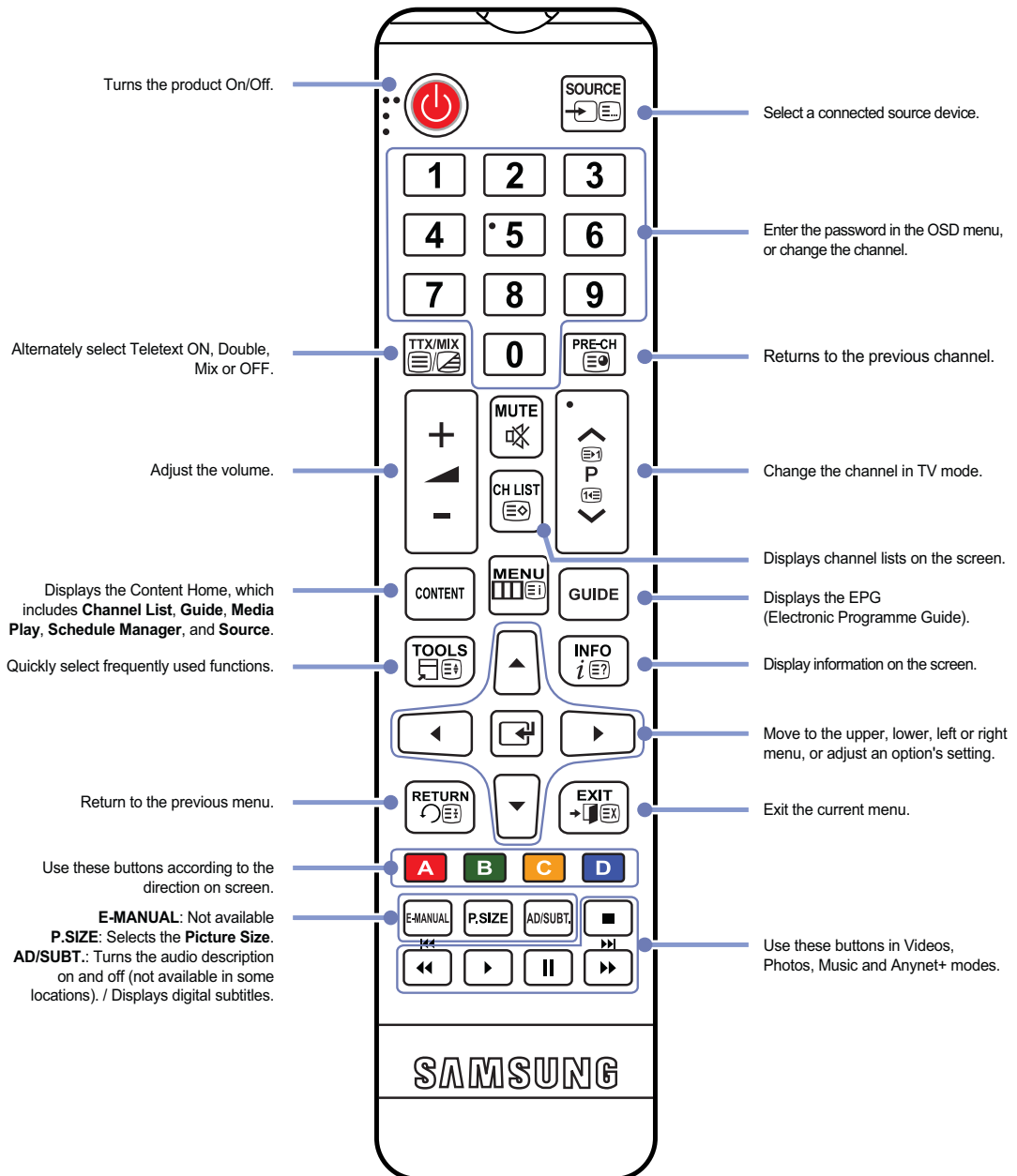


- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the locking device into the anti-theft lock slot at the back of the product.
- 4 Lock the locking device.
  - An anti-theft locking device can be purchased separately.
  - Refer to the user guide provided with your anti-theft locking device for details.
  - Anti-theft locking devices can be purchased at electronics retailers or online.


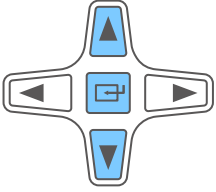
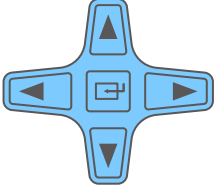
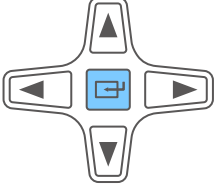

## 1.2.4 Remote Control



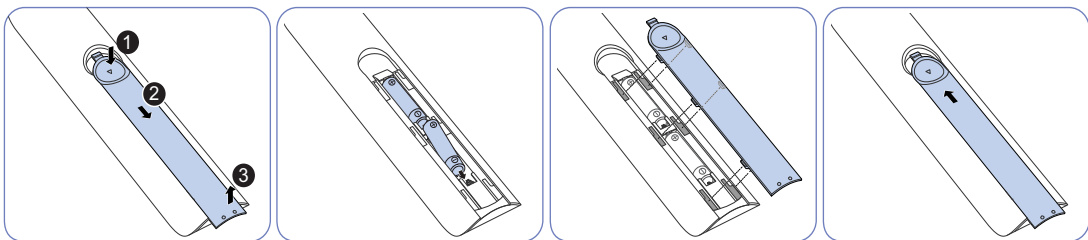
- Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.
- Remote control button functions may differ for different products.



## Adjusting the OSD with the Remote Control

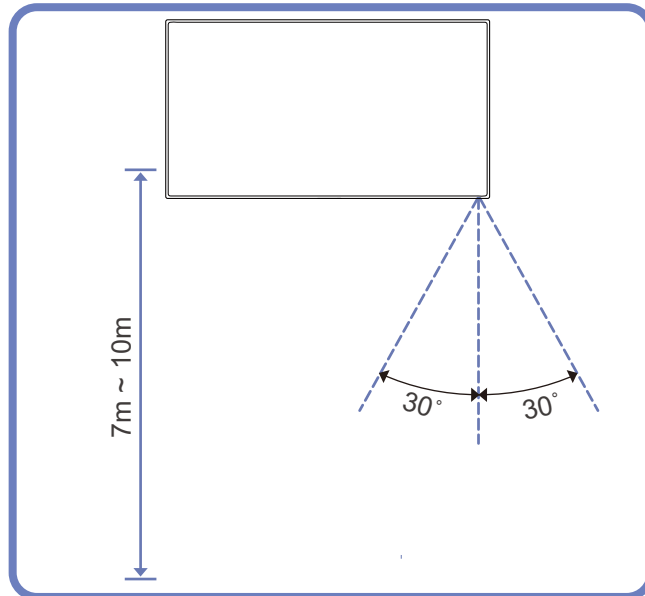
	1. Open the OSD menu.
	2. Select from <b>Picture</b> , <b>Sound</b> , <b>Channel</b> , <b>System</b> or <b>Support</b> in the displayed OSD menu screen.
	3. Change settings as desired.
	4. Finish setting.
	5. Close the onscreen display (OSD) menu.

## To place batteries in the remote control



Batteries are sold separately.

## Remote Control Reception Range















Use the remote control within 7m to 10m from the sensor on the product at an angle of 30° from the left and right.



- Store used batteries out of reach of children and recycle.
- Do not use a new and used battery together. Replace both batteries at the same time.
- Remove batteries when the remote control is not to be used for an extended period of time.

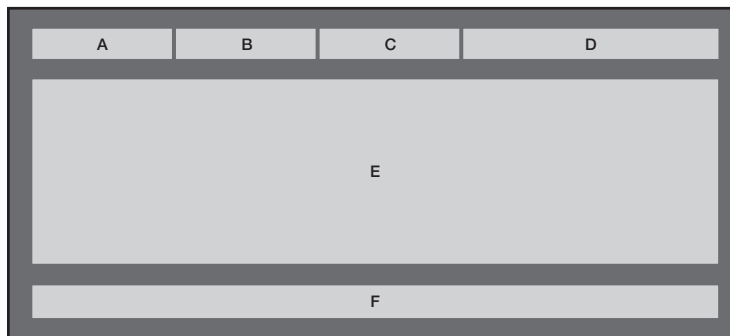
### 1.2.5 Teletext Feature

The index page of the Teletext service gives you information on how to use the service. For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed. You can change Teletext pages by pressing the numeric buttons on the remote control.

-  (mode): Selects the Teletext mode (LIST/FLOF). If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the  (store) button.
-  (Teletext on/mix/off): Activates the Teletext mode for the current channel. Press the button twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.
-  (sub-page): Displays the available sub-page.
-  (store): Stores the Teletext pages.
-  (index): Displays the index (contents) page at any time while you are viewing Teletext.
-  (size): Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
-  (hold): Holds the display at the current page, in the case that there are several secondary pages that follow automatically. To undo, press it again.
-  (page up): Displays the next Teletext page.
-  (page down): Displays the previous Teletext page.
-  (reveal): Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.
-  (cancel): Shrinks the Teletext display to overlap with the current broadcast.
- Colour buttons (red, green, yellow, blue): If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colorcoded and can be selected by pressing the coloured buttons. Press the colour corresponding to the topic of your choice. A new colour coded page is displayed. Items can be selected in the same way. To display the previous or next page, press the corresponding coloured button.

The Teletext pages are organized according to six categories:

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.



## 1.3 Before Installing the Product (Installation Guide)



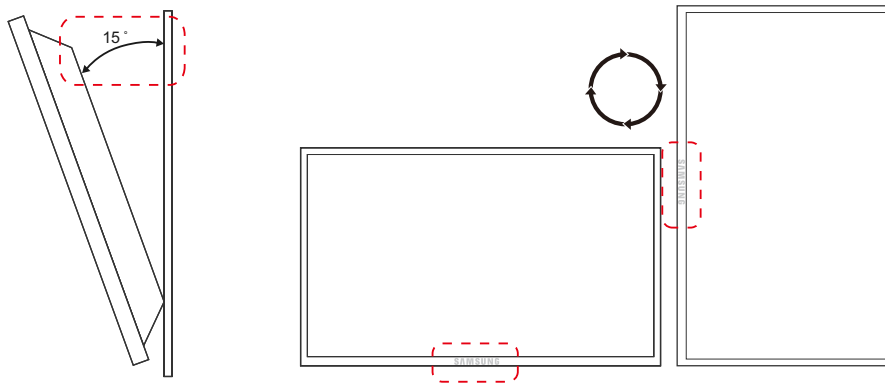
To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

- Ensure that an authorized installation company installs the wall mount.
- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.

### 1.3.1 Tilting Angle and Rotation



Contact Samsung Customer Service Centre for further details.



- A The product can be tilted at a maximum angle of 15° from a perpendicular wall surface.
- B To use the product vertically (portrait), turn it clockwise so that the LED is pointing down.



### 1.3.2 Ventilation

#### 1. Installation on a Perpendicular Wall

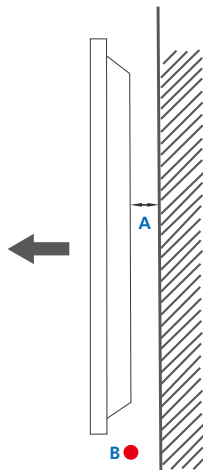


Figure 1.1 Side view

- A Minimum 40 mm
- B Ambient temperature: Under 35°C

- When installing the product on a perpendicular wall, allow at least 40mm of space between the product and wall surface for ventilation and ensure that the ambient temperature is kept below 35°C.

#### 2. Installation on an Indented Wall



Contact Samsung Customer Service Centre for further details.

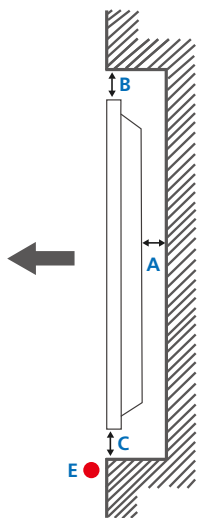


Figure 1.2 Side view

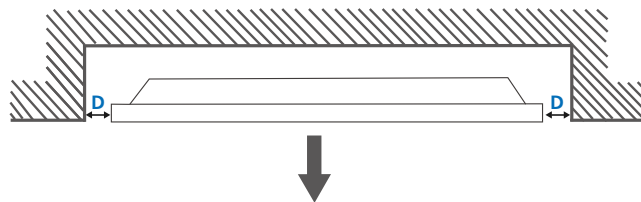


Figure 1.3 Top view

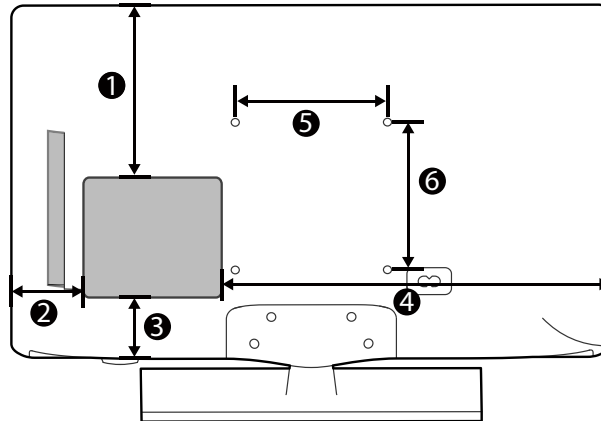
Plane view

- A Minimum 40 mm
- B Minimum 70 mm
- C Minimum 50 mm
- D Minimum 50 mm
- E Ambient temperature: Under 35°C



When installing the product on an indented wall, allow at least the space specified above between the product and wall for ventilation and ensure that the ambient temperature is kept below 35°C.

## 1.3.3 Dimensions



(Unit: mm)

Model name	①	②	③	④	⑤	⑥
H32B	188.8	88.1	95.4	482.4	200	200
H40B	244	148.5	160	613.1	200	200



All drawings are not necessarily to scale. Some dimensions are subject to change without prior notice. Refer to the dimensions prior to performing installation of your product. Not responsible for typographical or printed errors.

## 1.4 Installing the Wall Mount

### 1.4.1 Installing the Wall Mount KIT

The wall mount KIT (sold separately) allows you to mount the product on the wall.

For detailed information on installing the wall mount, see the instructions provided with the wall mount.

We recommend you contact a technician for assistance when installing the wall mount bracket.

Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

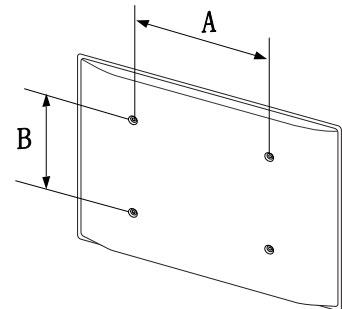
### 1.4.2 Wall Mount KIT Specifications (VESA)



Install your wall mount on a solid wall perpendicular to the floor. Before attaching the wall mount to surfaces other than plaster board, please contact your nearest dealer for additional information. If you install the product on slanted wall, it may fall and result in severe personal injury.



- Standard dimensions for wall mount kits are shown in the table below.
- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications.  
Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly.  
This may damage the product or cause the product to fall, leading to personal injury.  
Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Always have two people mount the product on a wall.



(Unit: mm)

VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
200 x 200	M6	4



Do not install your Wall Mount Kit while your product is turned on. It may result in personal injury due to electric shock.

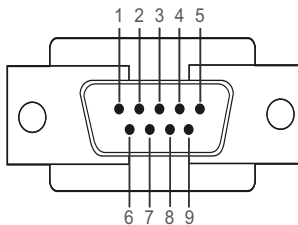
## 1.5 RS232C Connection

### 1.5.1 Cable Connection

#### RS232C Network spec

Interface	RS232C (9 pins)
Pin	TxD (No. 2), RxD (No. 3), GND (No. 5)
Bit rate	9600 bps
Data bits	8 bit
Parity	None
Stop bit	1 bit
Flow control	None
Maximum length	4m (only shielded type)

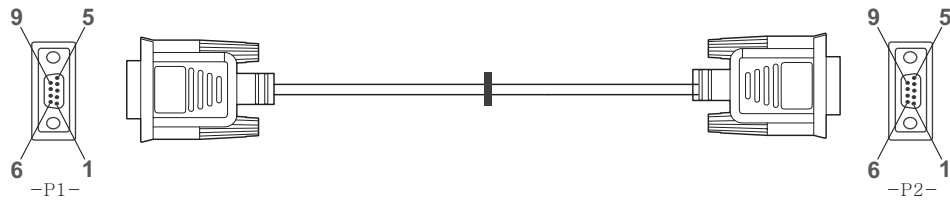
#### Pin assignment



Pin	Signal
1	Detect data carrier
2	Received data
3	Transmitted data
4	Prepare data terminal
5	Signal ground
6	Prepare data set
7	Send request
8	Clear to send
9	Ring indicator

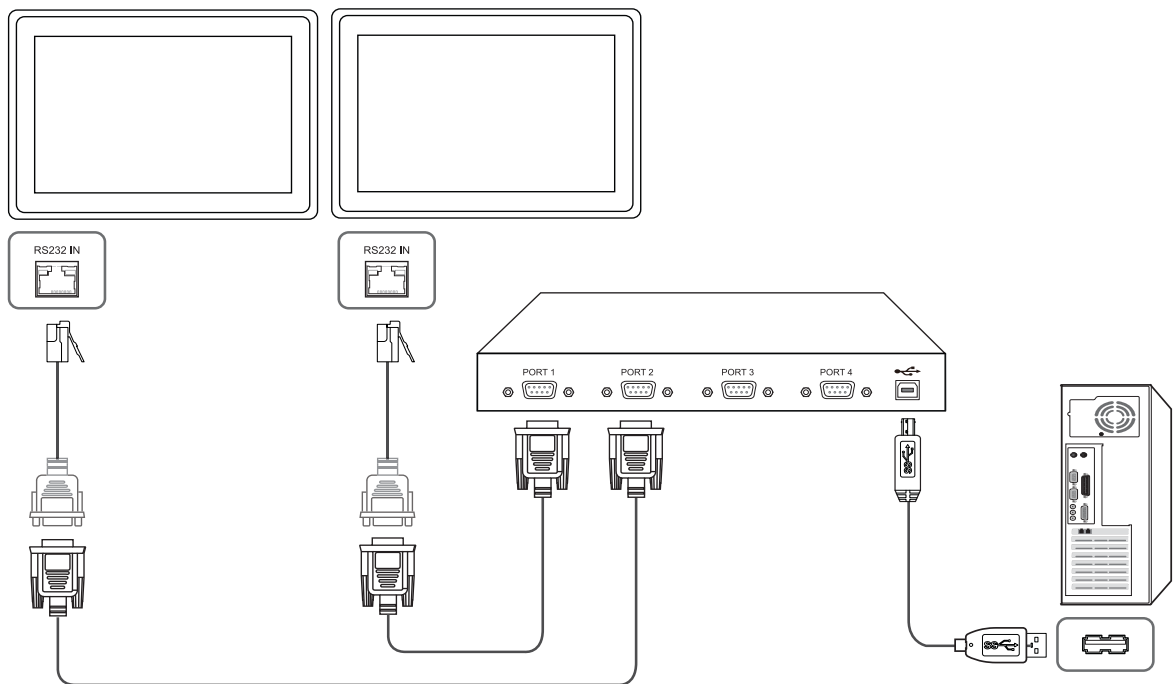
## RS232C cable

- Connector: 9-Pin D-Sub
- Cable : Cross Cable



-P1-		-P1-		-P2-		-P2-
Female	Rx	2	----->	1	Tx	STEREO PLUG (3.5ø)
	Tx	3	<-----	2	Rx	
	Gnd	5	-----	3	Gnd	

## Connection



## Control Code

No.	Command type	Command	Value range
1	Power control	0x11	0~1
2	Input Source Control	0x14	-
3	Contrast Control	0x24	0 ~ 100
4	Brightness Control	0x25	0 ~ 100
5	Manual Lamp (Backlight) Control	0x58	0 ~ 100
6	CHANNEL UP DOWN	0x61	0 ~ 1
7	VOLUME UP DOWN	0x62	0 ~ 1

- All communications take place in hexadecimals. The checksum is calculated by adding up all values except the header. If a checksum adds up to be more than 2 digits as shown below (11+FF+01+01=112), the first digit is removed.

E.g. Power On & ID=0

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x11		1	"Power"	



Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x11		1	1	13

- This product doesn't support ID setup. This product uses only zero value for ID.

## Power control

- Function  
A product can be powered on and off using a PC.
- Viewing power state (Get Power ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x11		0	

- Setting power ON/Off (Set Power ON / OFF)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x11		1	"Power"	

"Power": Power code to be set on a product.

1: Power ON

0: Power OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x11	"Power"	

"Power": Power code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x11	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command



## Input source control

- Function  
The input source of a product can be changed using a PC.
- Viewing input source state (Get Input Source Status)

Header	Command	ID	Data length	Checksum
0xAA	0x14		0	

- Setting the input source (Set Input Source)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x14		1	"Input Source"	

"Input Source": An input source code to be set on a product.

0x14	PC
0x0C	AV (AV1)
0x0D	AV2
0x0E	Ext. (SCART1)
0x08	Component
0x40	DTV
0x21	HDMI1
0x22	HDMI1_PC
0x23	HDMI2
0x24	HDMI2_PC
0x31	HDMI3
0x32	HDMI3_PC



Note. HDMI1\_PC, HDMI2\_PC and HDMI3\_PC cannot be used with the Set command. They only respond to "Get" commands.

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x14	"Input Source"	

"Input Source": An input source code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x14	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

### Contrast Control

- Function

The "Contrast" of a product can be changed using a PC.

- Get "Contrast" Status

Header	Command	ID	Data length	Checksum
0xAA	0x24		0	

- Set "Contrast"

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x24		1	"Contrast"	

"Contrast" : Contrast value code to be set on a product ( 0 ~ 100 )

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x24	"Contrast"	

"Contrast" : Contrast value code to be set on a product ( 0 ~ 100 )

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x24	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

**Brightness Control**

- Function

The "brightness" of a product can be changed using a PC.

- Get "Brightness" Status

Header	Command	ID	Data length	Checksum
0xAA	0x25		0	

- Set "Brightness"

Header	Command	ID	Data length	Data	Checksum
0xAA	0x25		1	"brightness"	

"brightness" : Brightness value code to be set on a product. ( 0 ~ 100 )

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x25	"brightness"	

"brightness" : Brightness value code to be set on a product. ( 0 ~ 100 )

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x25	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

**Manual Lamp (Backlight) Control**

- Function

The "Manual Lamp(backlight) "of a product can be changed using a PC.

- Get "Manual Lamp" Status

Header	Command	ID	Data length	Checksum
0xAA	0x58		0	

- Set "Manual Lamp"

Header	Command	ID	Data length	Data	Checksum
0xAA	0x58		1	"LampValue"	

"LampValue" : Manual Lamp value to be set on a product. (0 ~ 100)

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x58	"LampValue"	

"LampValue" : Manual Lamp value to be set on a product. (0 ~ 100)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x58	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

## Channel Up/Down

- Function

Personal Computer can control TV Channel.

(If PIP is on and PIP source is TV, it also should work.)

- Get TV Channel Up/Down : N/A
- Set TV Channel Up/Down

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x61		1	"Channel Up/Down"	

Channel Up/Down: Channel UP or Down to be set on a product. (0~1)

0 : Up

1 : Down

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x61	"Channel Up/Down"	

"Channel Up/Down": Channel UP or Down to be set on a product. (0~1)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x61	"ERR"	

"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

### Volume control

- Function  
The volume of a product can be adjusted using a PC.
- Viewing volume state (Get Volume Status) : N/A
- Setting the volume (Set Volume)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x62		1	"Volume"	

"Volume": Volume value code to be set on a product. (0 ~ 1)

0 : Up

1 : Down

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x62	"Volume"	

"Volume": Volume value code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x62	"ERR"	

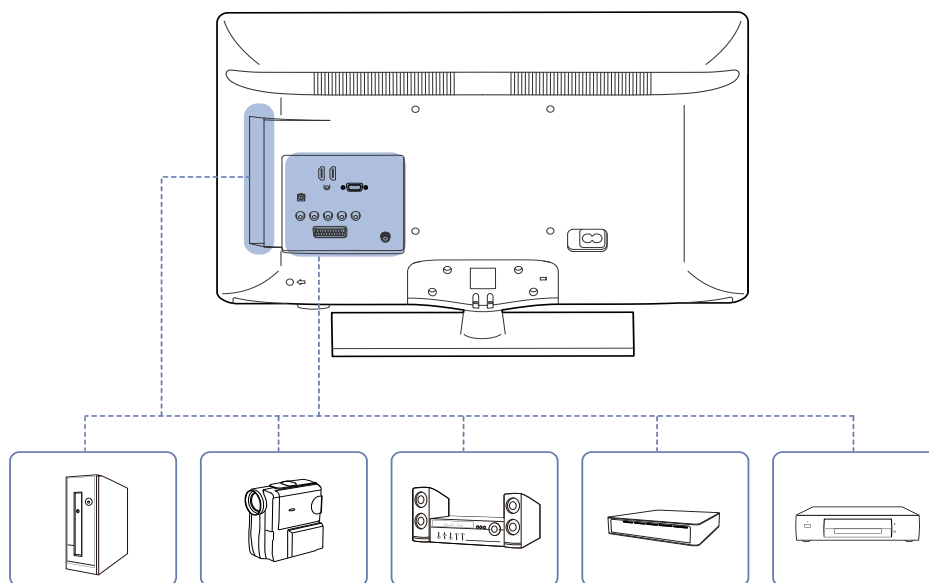
"ERR": A code showing what error has occurred.

0 : Check Sum Error

1 : Not Supported Command

## 2.1 Before Connecting

Check the following before you connect this product with other devices. Devices that can be connected to this product include PCs, camcorders, speakers, set top boxes and DVD/Blu-ray Disc players.



### 2.1.1 Pre-connection Checkpoints

- Before connecting a source device, read the user manual provided with it.  
The number and locations of ports on source devices may differ from device to device.
- Do not connect the power cable until all connections are completed.  
Connecting the power cable during connection may damage the product.
- Connect the sound ports correctly: left = white and right = red.
- Check the types of ports at the back of the product you want to connect.

## 2.2 Connecting and Using a PC

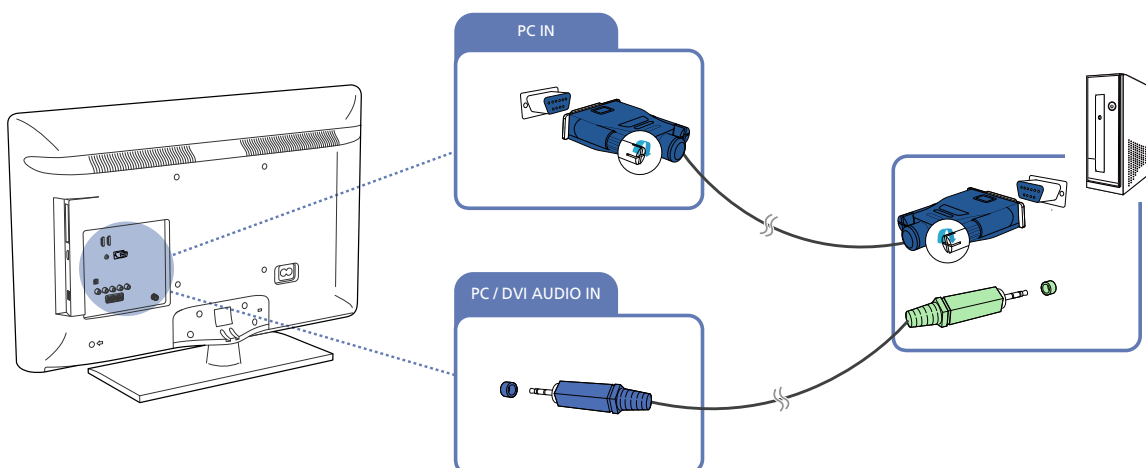
### 2.2.1 Connecting to a PC

- Do not connect the power cable before connecting all other cables.  
Ensure you connect a source device first before connecting the power cable.
- A PC can be connected to the product in a variety of ways.  
Select a connection method suitable for your PC.

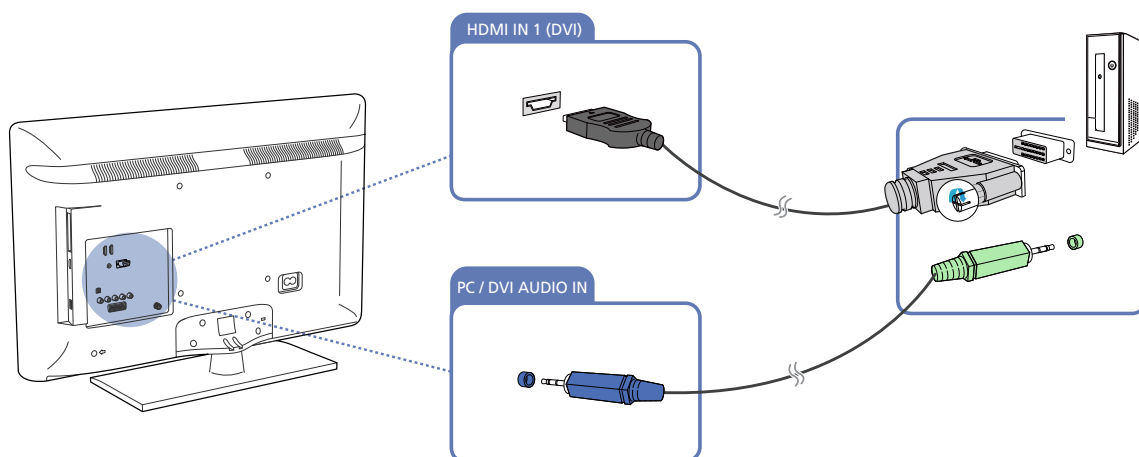


Connecting parts may differ in different products.

#### Connection using the D-SUB cable (Analogue type)



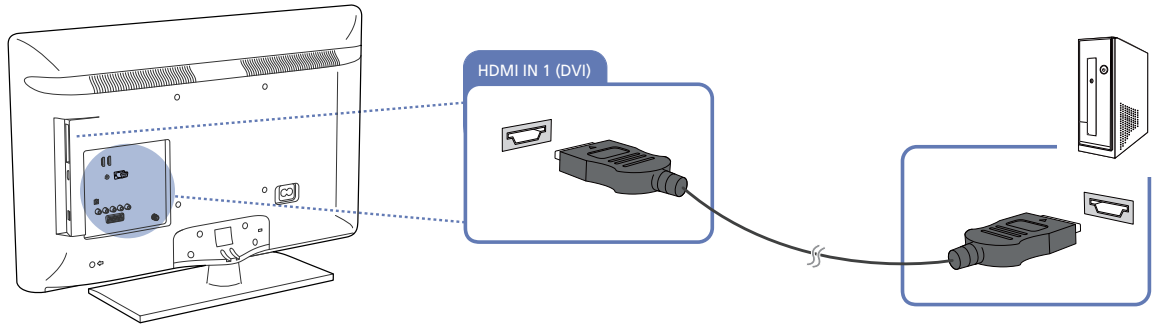
#### Connection Using an HDMI-DVI Cable



When you connect a PC to the product using an HDMI-DVI cable, set **Edit Name** to **DVI PC** to access video and audio content stored on the PC.



### Connection Using an HDMI Cable



### 2.2.2 Changing the Resolution

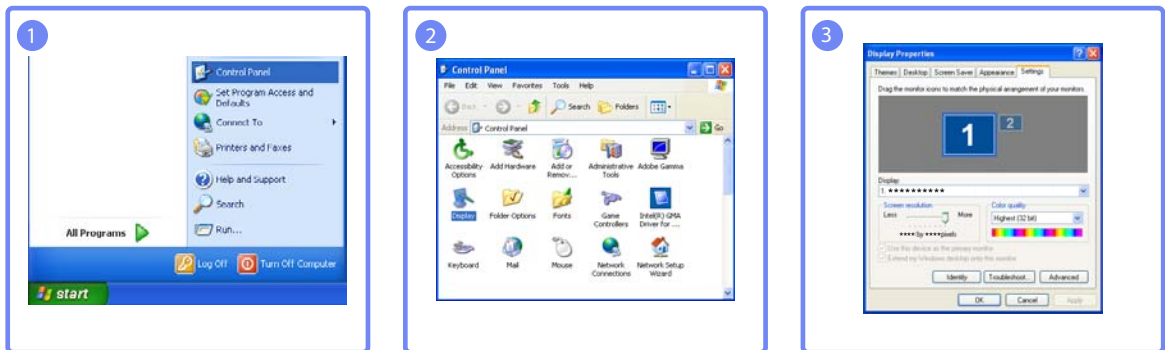


Adjust the resolution and refresh rate in Control Panel on your PC to obtain optimum picture quality.

The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.

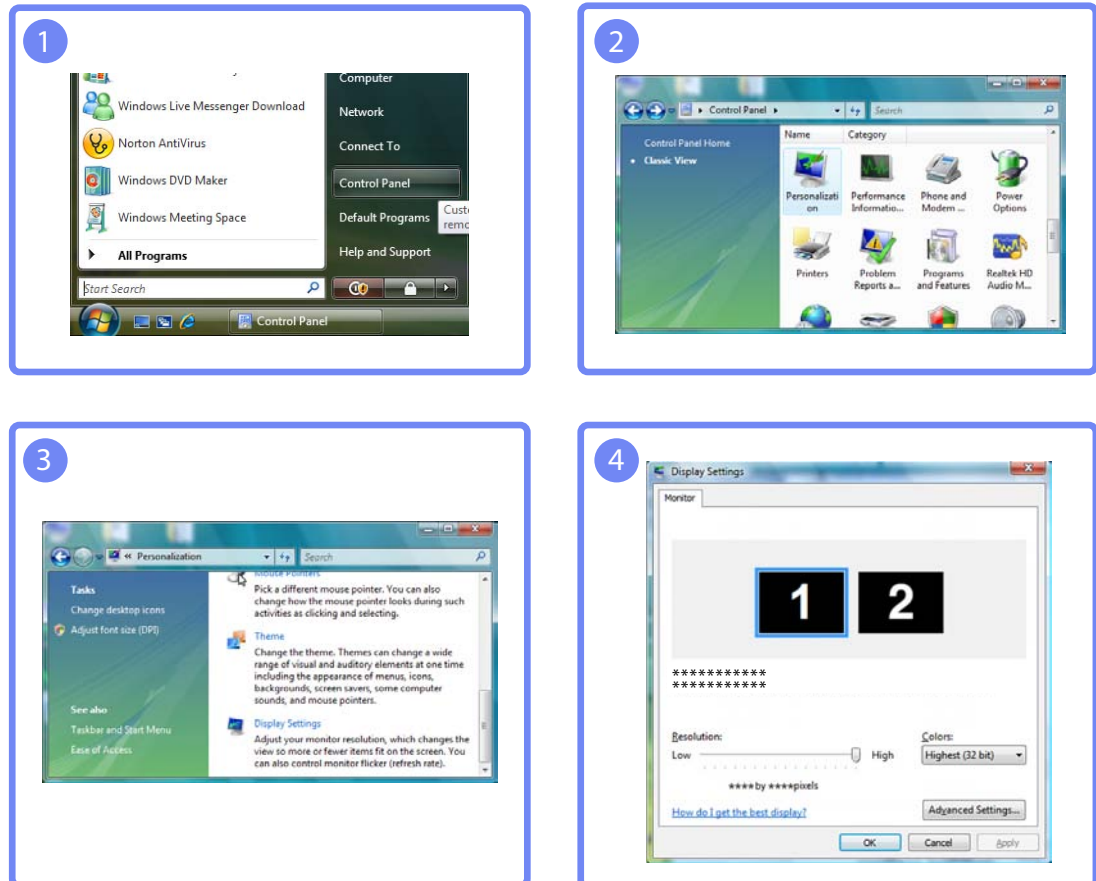
Changing the Resolution on Windows XP

Go to **Control Panel** → **Display** → **Settings**, and change the resolution.



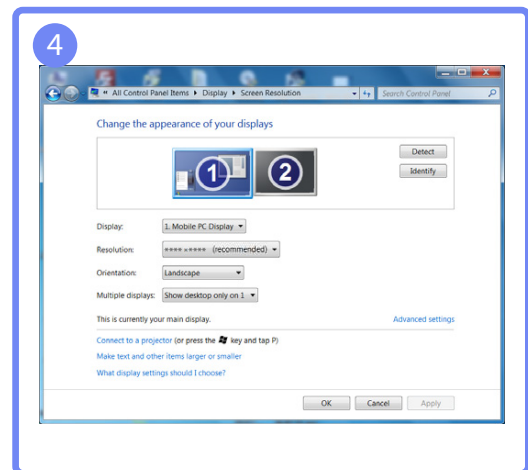
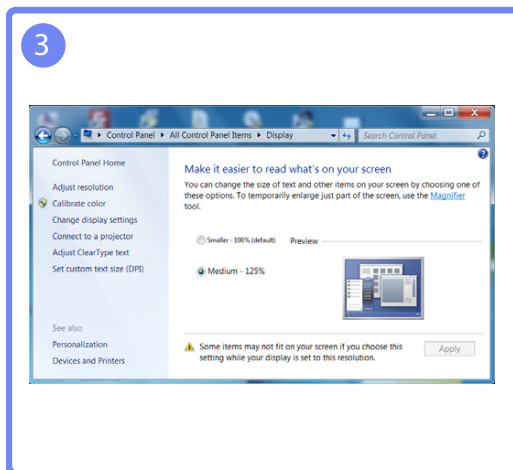
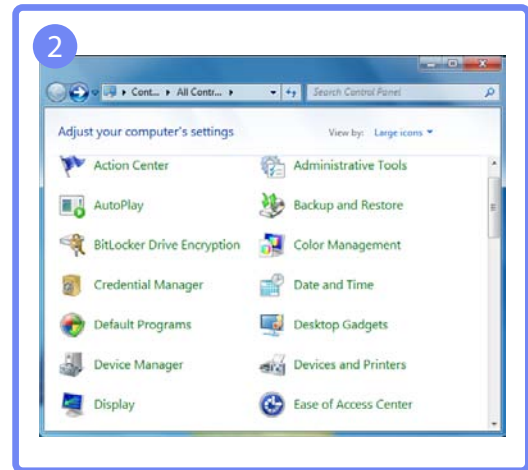
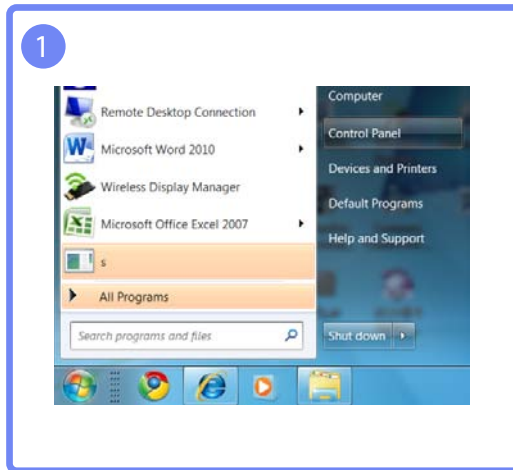
Changing the Resolution on Windows Vista

Go to **Control Panel** → **Personal Settings** → **Display Settings**, and change the resolution.



Changing the Resolution on Windows 7

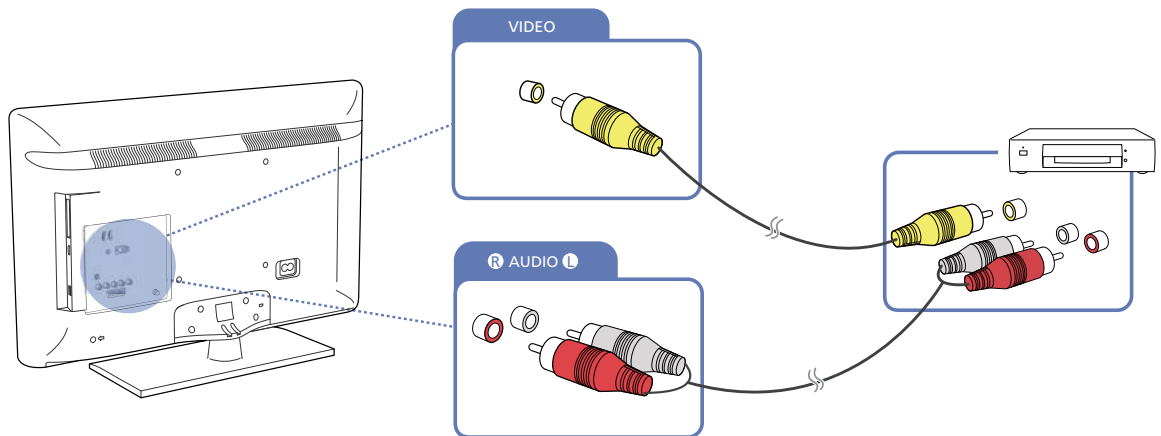
Go to **Control Panel** → **Display** → **Screen Resolution**, and change the resolution.



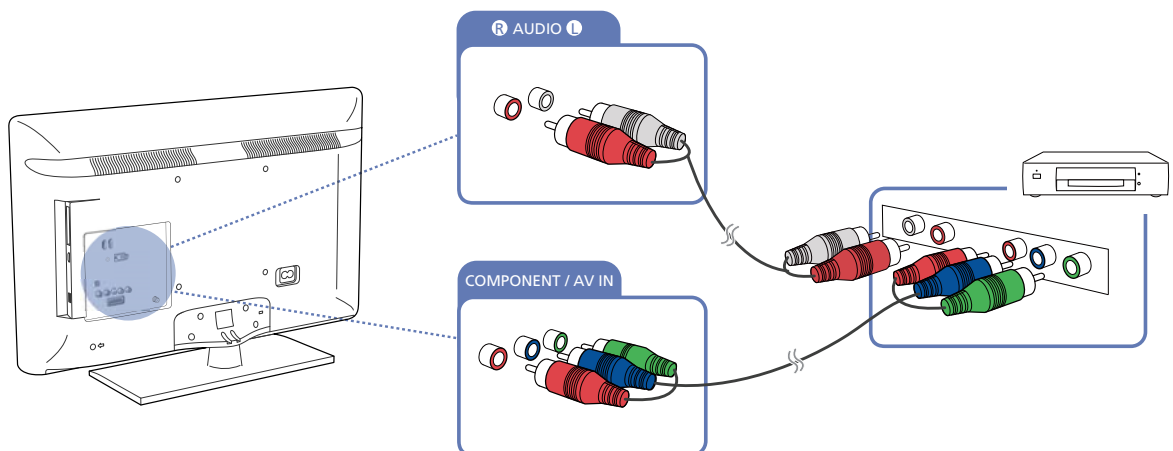
## 2.3 Connecting to a Video Device

- Do not connect the power cable before connecting all other cables.  
Ensure you connect a source device first before connecting the power cable.
- You can connect a video device to the product using a cable.
  - Connecting parts may differ in different products.
  - Press the **SOURCE** button on the remote control to change the source.

### 2.3.1 Connection Using the Video Cable

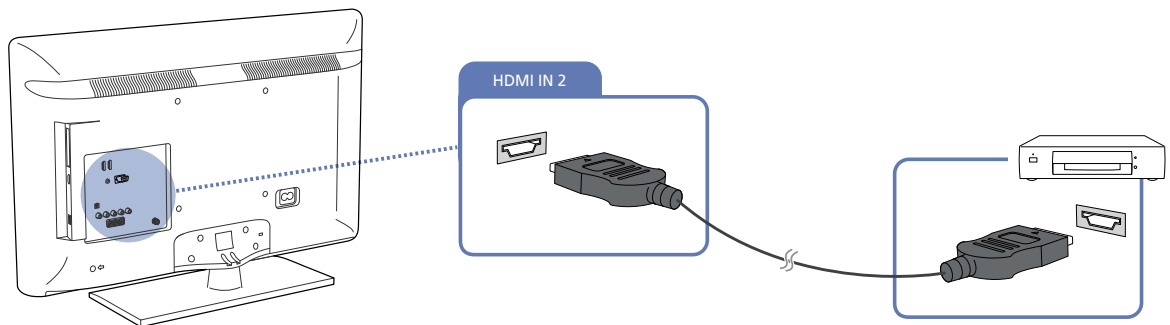


### 2.3.2 Connection Using the Component Cable

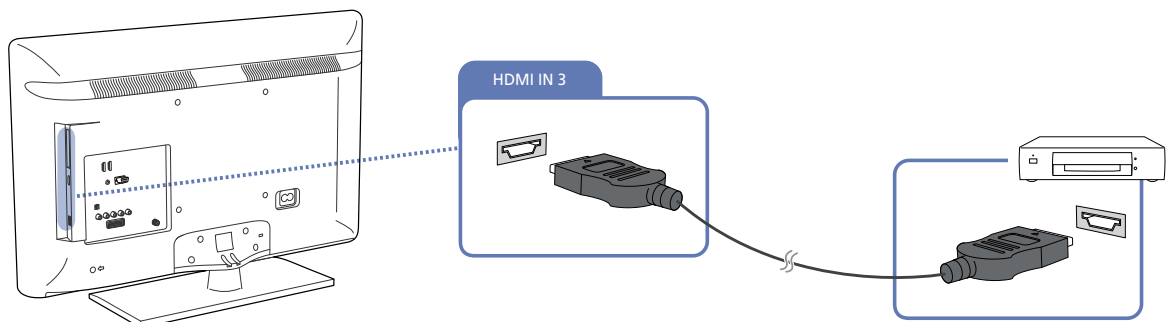


### 2.3.3 Connection Using an HDMI Cable

(Rear)



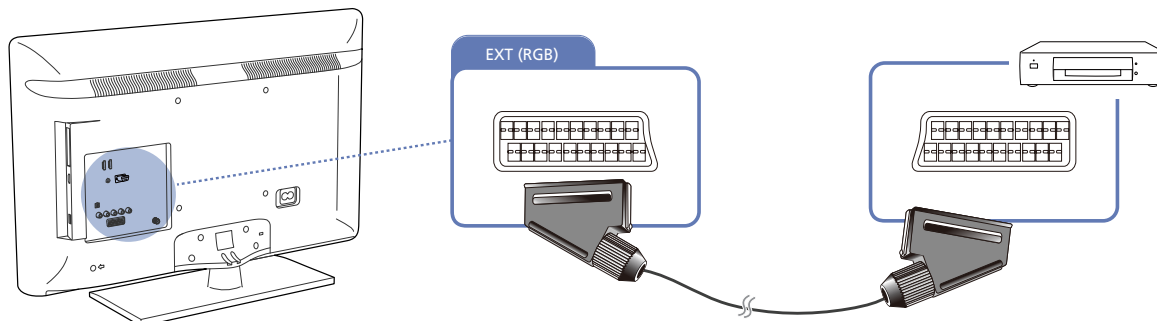
(Side)



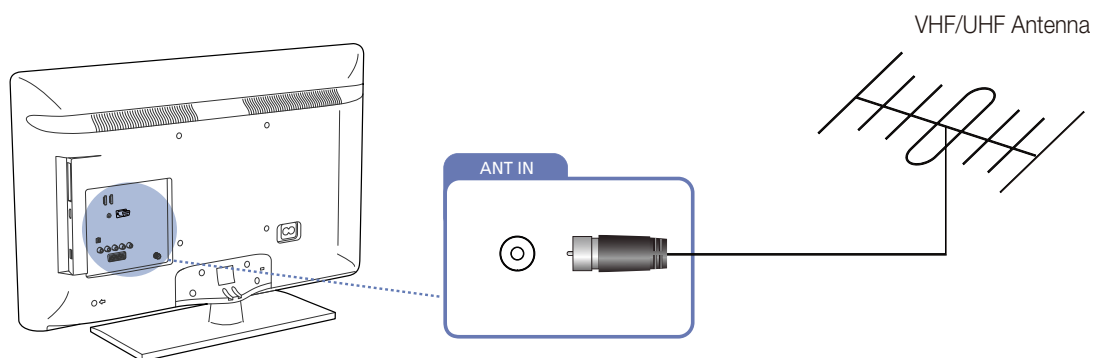
#### Using an HDMI cable or HDMI to DVI Cable (up to 1080p)

- For better picture and audio quality, connect to a digital device using an HDMI cable.
- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
  - ▢ To connect the product to a digital device that does not support HDMI output, use an HDMI/DVI and audio cables.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product.
- Be sure to use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with ethernet is recommended.  
This product does not support the ethernet function via HDMI.

### 2.3.4 Connecting to an Ext.



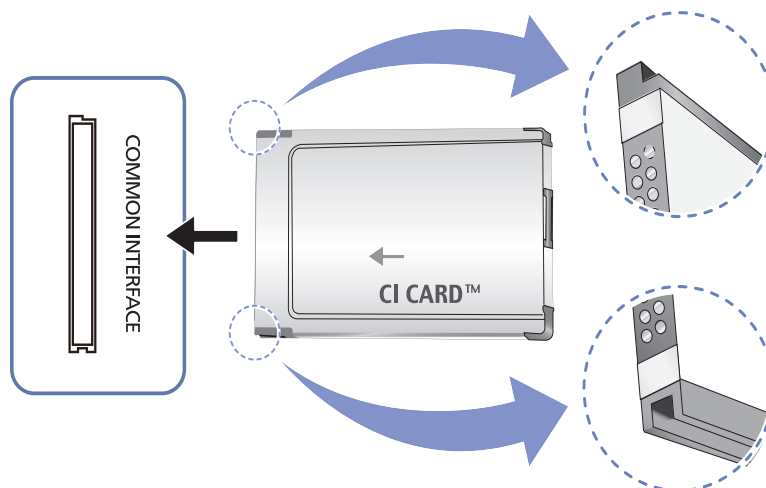
### 2.3.5 Connecting to an Antenna




## 2.4 Connecting to a COMMON INTERFACE slot

### 2.4.1 Using the “CI or CI+ CARD”

To watch paid channels, the “CI or CI+ CARD” must be inserted.



- If you don't insert the “CI or CI+ CARD,” some channels will display the message “Scrambled Signal”.
  - The pairing information containing a telephone number, the “CI or CI+ CARD” ID the Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
  - When the configuration of channel information has finished, the message “Updating Completed” is displayed, indicating the channel list is updated.
-  • You must obtain a “CI or CI+ CARD” from a local cable service provider.
- When removing the “CI or CI+ CARD”, carefully pull it out with your hands since dropping the “CI or CI+ CARD” may cause damage to it.
  - Insert the “CI or CI+ CARD” in the direction marked on the card.
  - The location of the “COMMON INTERFACE” slot may be different depending on the model.
  - “CI or CI+ CARD” is not supported in some countries and regions; check with your authorized dealer.
  - If you have any problems, please contact a service provider.
  - Insert the “CI or CI+ CARD” that supports the current antenna settings. The screen will be distorted or will not be seen.

## 2.5 Changing the Input source

### 2.5.1 Source

 **MENU** [] → **Support** → **Contents Home** → **Source** → **ENTER** []

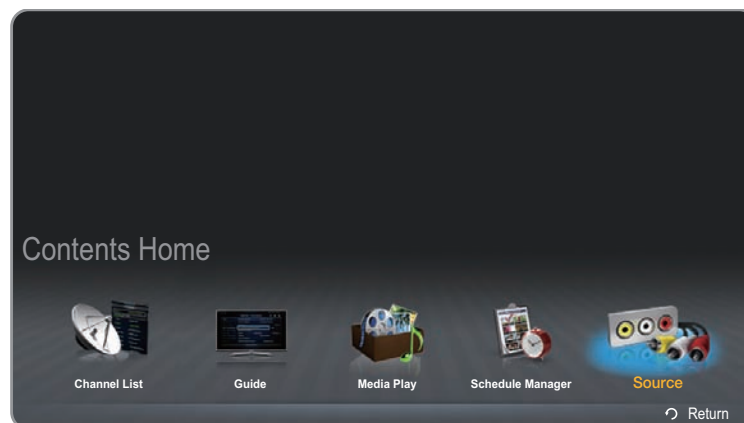
**Source** allows you to select a variety of sources and change source device names.

#### Source

You can display the screen of a source device connected to the product. Select a source from source list to display the screen of the selected source.



Refer to page 105 for details about the **Source** menu.



The input source can also be changed by using the **SOURCE** button on the remote control.



The screen may not display correctly if an incorrect source is selected for the source device you want to convert to.



## Screen Adjustment

Configure the **Picture** settings (**Brightness**, **Sharpness**, etc.).

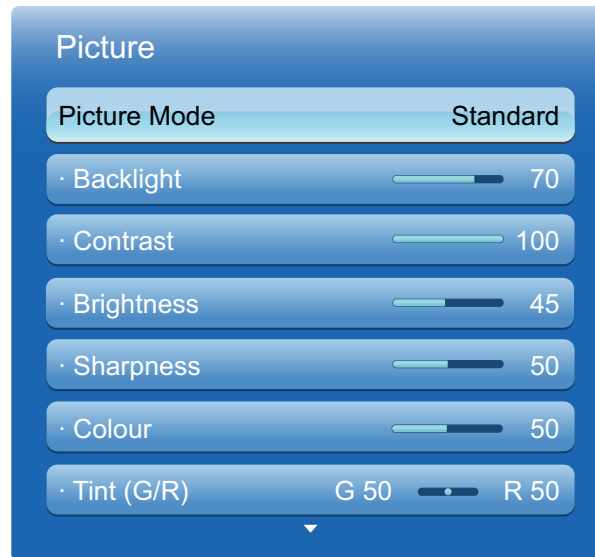


The layout of the **Picture** menu options may vary depending on the product.

### 3.1 Picture Mode

 **MENU** [ ] → **Picture** → **Picture Mode** → **ENTER** [ ]

Select a picture mode (**Picture Mode**) suitable for the environment where the product will be used. Different **Picture Mode** options are displayed depending on the current input source.



The displayed image may differ depending on the model.

#### 3.1.1 If the input source is PC

- **Entertain**: Suitable for watching movies and games.
- **Standard**: Suitable for a normal environment.



The Advanced colour Management programme can be downloaded from [www.samsunglfd.com](http://www.samsunglfd.com).

### 3.1.2 If the input source is AV, Component, HDMI or TV

- **Dynamic:** This mode is suitable when the ambient light is bright.
- **Standard:** This mode is generally suitable for any environment.
- **Natural:** Suitable for reducing eye strain. (H40B Model Only)
- **Movie:** This mode reduces eye fatigue.

## 3.2 Backlight / Contrast / Brightness / Sharpness / Colour / Tint (G/R)

 **MENU** [ ] → **Picture** → **ENTER** [ ]

Your product has several options for adjusting picture quality. Select an option using the ▲ and ▼ buttons, and then press [ ]. Use the arrow keys to adjust the option value or select an option setting.



When done, press [ ].



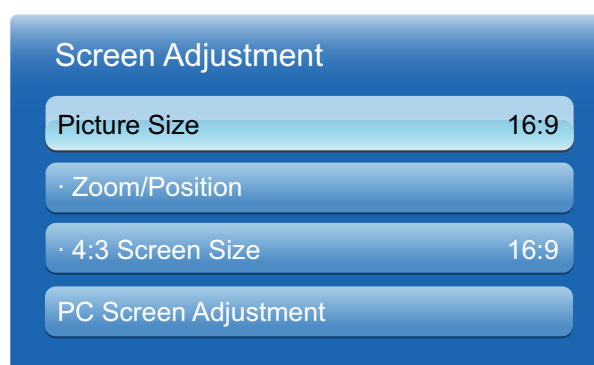
- When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Colour** or **Tint (G/R)**, the OSD will be adjusted accordingly.
- When connecting a **PC**, you can only make changes to **Backlight**, **Contrast**, **Brightness**, and **Sharpness**.
- You can adjust and store Settings for each external device connected to the product.
- Lowering picture brightness reduces power consumption.

## 3.3 Screen Adjustment

 **MENU** [] → **Picture** → **Screen Adjustment** → **ENTER** []

**Screen Adjustment** provides various picture size and aspect ratio options. Select an option using the ▲ and ▼ buttons, and then press []. Use the arrow keys to select an option in the sub-menu, and then press [].

Different **Screen Adjustment** options are displayed depending on the current input source.



The displayed image may differ depending on the model.

### 3.3.1 Picture Size

If you have a cable box or satellite receiver, it may have its own set of screen sizes as well. However, we highly recommend you use your product's **16:9** mode most of the time.

- **Auto Wide**: Automatically adjusts the picture size to the **16:9** aspect ratio.
- **16:9**: Sets the picture to 16:9 wide mode.
- **Wide Zoom**: Magnifies the picture size more than **4:3**.
- **Zoom**: Magnifies the **16:9** wide pictures vertically to fit the screen size.
- **4:3**: Sets the picture to basic (4:3) mode.



Do not set your product to 4:3 format for a long time. The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.

- **Smart View 1**: Reduces the 16:9 picture by 50%.



**Smart View 1** is enabled only in **HDMI** mode.

- **Smart View 2**: Reduces the 16:9 picture by 25%.



**Smart View 2** is enabled only in **HDMI** mode.

- **Screen Fit**: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.



You can adjust and store settings for each external device you have connected to an input on the product.

### Picture Sizes available by Input Source

Input Source	Picture Size
AV, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
Component (1080i, 1080p)	16:9, 4:3, Screen Fit
HDMI (720p, 1080i, 1080p)	16:9, 4:3, Screen Fit, Smart View 1, Smart View 2
PC (when a PC is connected)	16:9, 4:3
TV	Auto Wide, 16:9, Wide Zoom, Zoom, 4:3, Smart View 2
Ext.	Auto wide, 16:9, Wide Zoom, Zoom, 4:3

### 3.3.2 Position

Adjusts the picture position. **Position** is only available if **Picture Size** is set to **Zoom1**, **Zoom2**, **Wide Fit**, **Screen fit** or **Custom**.

- To use the **Position** function after selecting **Zoom1**, **Zoom2** or **Wide Fit**, follow these steps.
  - 1 Press the ▼ button to select **Position**.
  - 2 Press the [ ] button.
  - 3 Press the ▲ or ▼ button to move the picture up or down.
  - 4 Press the [ ] button.
  - 5 Select **Close** by pressing the ▲ and ▼ buttons sequentially. To reset the picture position, press **Reset**.
- To use the **Position** function after selecting **Screen Fit** in **HDMI** (1080i/1080p) or **Component** (1080i/1080p) or **Custom**, follow these steps.
  - 1 Press the ▼ button to select **Position**.
  - 2 Press the [ ] button.
  - 3 Press the ▲/▼/◀/▶ button to move the picture.
  - 4 Press the [ ] button.
  - 5 Select **Close** by pressing the ▲ and ▼ buttons sequentially.



If you want to reset the picture to its original position, select **Reset** in the **Position** screen. The picture will be set to its default position.

### 3.3.3 Zoom/Position

Adjust the picture size and position. It is only available in **Zoom**.

### 3.3.4 4:3 Screen Size

- **16:9 / Wide Zoom / Zoom / 4:3**

Available only when picture size is set to **Auto Wide**. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size. Each European country requires different picture size.

### 3.3.5 PC Screen Adjustment



Available in **PC** mode only.

**Coarse / Fine:** Removes or reduces picture noise. If the noise is not removed by Fine-tuning alone, use the **Coarse** function to adjust the frequency as best as possible (**Coarse**) and Fine-tune again. After the noise has been reduced, re-adjust the picture so that it is aligned with the centre of screen.

**Position:** To adjust the PC's screen position if it is not centred or does not fit the product screen. Press the ▲ or ▼ button to adjust the Vertical Position. Press the ◀ or ▶ button to adjust the Horizontal Position.

**Image Reset:** Resets the image to the default settings.

## 3.4 Auto Adjustment

 **MENU** [ ] → **Picture** → **Auto Adjustment** → **ENTER** [ ]

Adjust frequency values/positions and fine tune the settings automatically.



This option is available when the input source is **PC**.

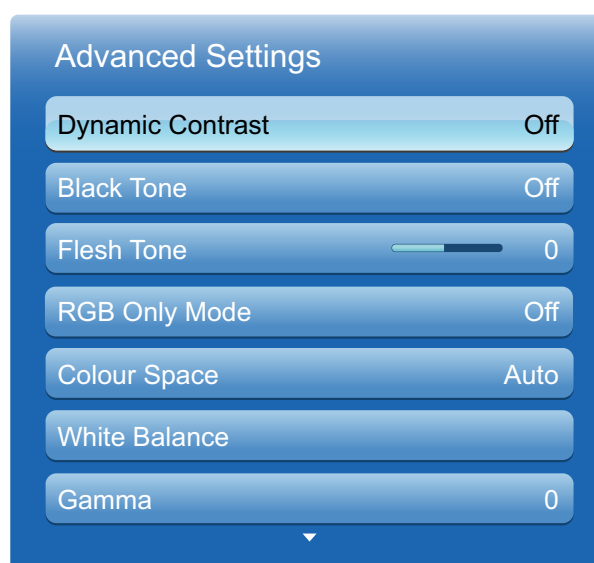
## 3.5 Advanced Settings

 **MENU** [] → **Picture** → **Advanced Settings** → **ENTER** []

All **Advanced Settings** are available in the **Standard** and **Movie** modes. To use, select an option using the up and down arrow keys, and then press []. Use the arrow keys to change the value or setting, and then press [].



In **PC** mode, you can only make changes to **Gamma** and **White Balance**.



The displayed image may differ depending on the model.

### 3.5.1 Dynamic Contrast

Adjust the screen contrast.

- **Off** / **Low** / **Medium** / **High**

### 3.5.2 Black Tone

Select the black level to adjust the screen depth.

- **Off** / **Dark** / **Darker** / **Darkest**

### 3.5.3 Flesh Tone

Adjust the flesh tone colour.

### 3.5.4 RGB Only Mode

Displays the **Red**, **Green** and **Blue** colour for making fine adjustments to the hue and saturation.

- **Off / Red / Green / Blue**

### 3.5.5 Colour Space

Adjusts the range and variety of colours (the colour space) available to create images.

- **Auto / Native**

### 3.5.6 White Balance

Adjust the colour temperature for a more natural picture.

- **R-Offset / G-Offset / B-Offset**: Adjust each color's (red, green, blue) darkness.
- **R-Gain / G-Gain / B-Gain**: Adjust each color's (red, green, blue) brightness.
- **Reset**: Resets the **White Balance** to it's default settings.

### 3.5.7 Gamma

Adjust the primary colour intensity.

### 3.5.8 Motion Lighting (Off / On)

Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.



Only available in **Standard** mode.

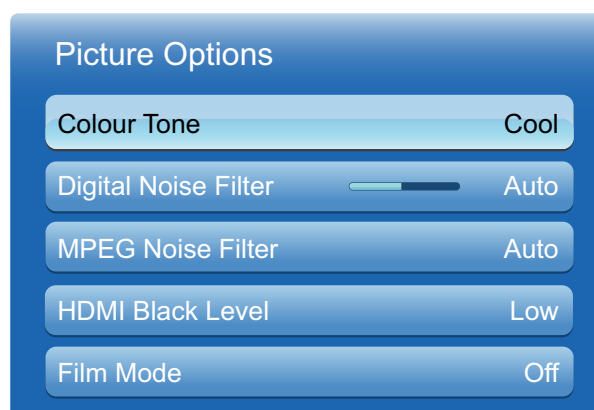
## 3.6 Picture Options

 **MENU** [MENU] → **Picture** → **Picture Options** → **ENTER** [ENTER]

Select an option using the ▲ and ▼ arrow keys, and then press [ENTER]. Use the arrow keys to change the setting, and then press [ENTER].



When connecting a PC, you can only make changes to the **Colour Tone**.



The displayed image may differ depending on the model.

### 3.6.1 Colour Tone

- **Cool / Standard / Warm1 / Warm2**



- **Warm1** or **Warm2** will be deactivated when the **Picture Mode** is **Dynamic**.
- You can adjust and store settings for each external device connected to an input on the product.



### 3.6.2 Digital Noise Filter

If the broadcast signal received by your product is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.

- **Off / Low / Medium / High / Auto / Auto Visualisation**



When the signal is weak, try all the options until the the product displays the best picture.

**Auto Visualisation:** When changing analogue channels, displays signal strength.



- Only available for analogue channels.
- When the **INFO** button is pressed, the signal strength bar is displayed.
- When bar is green, you are receiving the best possible signal.

### 3.6.3 MPEG Noise Filter

Reduces MPEG noise to provide improved picture quality.

- **Off / Low / Medium / High / Auto**

### 3.6.4 HDMI Black Level

Lets you adjust the screen depth by selecting a black level.

- **Normal / Low**



Available only in **HDMI** mode.

### 3.6.5 Film Mode

Sets the product to automatically sense and process film signals from all sources and adjust the picture for optimum quality.

- **Off / Auto1 / Auto2**



Available in **TV**, **AV**, **COMPONENT** (480i / 1080i) and **HDMI** (480i / 1080i).

### 3.6.6 LED Motion Plus (Off / On) - (H40B Model Only)

Removes blur and judder from scenes with large amounts of rapid movement to provide a clearer picture.

### 3.7 Reset Picture

 **MENU** [] → **Picture** → **Reset Picture** → **ENTER** []


Resets your current picture mode to its default settings.

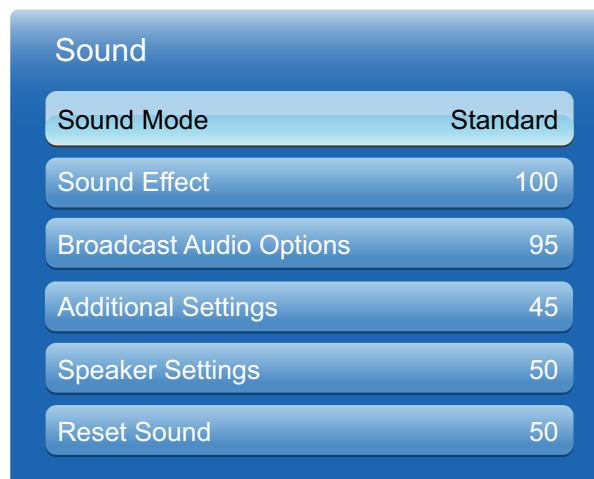
## Sound Adjustment

Configure the sound (**Sound**) settings for the product.

### 4.1 Sound Mode

 **MENU** [] → **Sound** → **Sound Mode** → **ENTER** []

Use the up and down arrow keys to select an option, and then press [].



The displayed image may differ depending on the model.

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.



If **Speaker Select** is set to **External**, **Sound Mode** is disabled.

## 4.2 Sound Effect

 **MENU** [MENU] → **Sound** → **Sound Effect** → **ENTER** [ENTER]



- If **Speaker Select** is set to **External**, **Sound Effect** is disabled.
- Available only when **Sound Mode** is set to **Standard**.

- **SRS TruSurround HD (Off / On)**

This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF(Head Related Transfer Function) technology.

- **SRS TruDialog (Off / On)**

This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

- **Equalizer**

The Equalizer displays a series of sliders. Use the up and down arrow keys to select a slider. Use the left and right arrow keys to change the slider's value. To **Reset** the **Equalizer**, select **Reset** and press [ENTER], then select **Yes** and press [ENTER]. To exit, select **Close**, and then press [ENTER].



**Equalizer** is available in the standard sound mode only.

- **Balance**: Adjusts the balance between the right and left speaker.
- **100Hz / 300Hz / 1kHz / 3kHz / 10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

## 4.3 Broadcast Audio Options

 **MENU** [MENU] → **Sound** → **Broadcast Audio Options** → **ENTER** [ENTER]

- **Audio Language** (digital channels only)

Change the default value for audio languages.



The available language may differ depending on the broadcast.

- **Audio Format** (digital channels only)

When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver.

- **Audio Description** (digital channels only)

This function handles the Audio Stream for the AD (Audio Description) which is sent along with the Main audio from the broadcaster.

- **Audio Description (Off / On):** Turn the audio description function on or off.
- **Volume:** Adjust the audio description volume.

## 4.4 Additional Settings

 **MENU** [ ] → **Sound** → **Additional Settings** → **ENTER** [ ]

- **DTV Audio Level (MPEG / HE-AAC)** (digital channels only)

This function allows you to reduce the disparity of a voice signal to a desired level.



The available language may differ depending on the broadcast.

- **Dolby Digital Comp (Line / RF)**

This function minimizes signal disparity between a dolby digital signal and a voice signal (i.e. MPEG Audio, HE-AAC, ATV Sound).



Select **Line** to obtain dynamic sound, and **RF** to reduce the difference between loud and soft sounds at night time.

## 4.5 Speaker Settings

 MENU [M] → Sound → Speaker Settings → ENTER [↵]

- Auto Volume (Off / Normal / Night)

**Normal** equalizes the volume level on each channel, so that when you change channels, the volume level is the same.

**Night** equalizes and decrease the volume level on each channel, so each channel is quieter. **Night** is useful at night, when you may want to keep the volume low.



To use the volume control of a connected source device, set **Auto Volume** to **Off**. A change to the volume control of the connected source device may not be applied if **Auto Volume** is set to **Normal** or **Night**.

## 4.6 Reset Sound

 MENU [M] → Sound → Reset Sound → ENTER [↵]

Reset all sound settings to the factory defaults. Select **Reset Sound**, press [↵], select **Yes** in the pop-up, and then press [↵] again.

## 5.1 Channel

 **MENU** [ ] → **Channel** → **ENTER** [ ]



The displayed image may differ depending on the model.

### 5.1.1 Aerial

 **MENU** [ ] → **Channel** → **Aerial** → **ENTER** [ ]

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the LED display.

- **Air / Cable**

### 5.1.2 Country


 **MENU** [ ] → **Channel** → **Country** → **ENTER** [ ]

The PIN input screen appears. Enter your 4 digit PIN number.

(depending on the country)

- **Digital Channel:** Change the country for digital channels.
- **Analogue Channel:** Change the country for analogue channels.

### 5.1.3 Auto Tuning

 **MENU** [ ] → **Channel** → **Auto Tuning** → **ENTER** [ ]

Scans for a channel automatically and stores in the product.

(depending on the country)



Automatically allocated programme numbers may not correspond to actual or desired programme numbers. If a channel is locked, the PIN input window appears.

- **Auto Tuning**

- **Air / Cable**: Select the aerial source to memorise.
- **Digital & Analogue / Digital / Analogue**: Select the channel source to memorise.

- **Cable Search Option**

Sets additional search options such as the frequency and symbol rate for a cable network search.

(depending on the country & cable channels only)

- **Start Frequency / Stop Frequency**: Set the start or stop frequency (differs in each country).
- **Symbol Rate**: Displays available symbol rates.
- **Modulation**: Displays available modulation values.



### 5.1.4 Manual Tuning

 **MENU** [ ] → **Channel** → **Manual Tuning** → **ENTER** [ ]

Scans for a channel manually and stores in the product.



- If a channel is locked, the PIN input window appears.
- According to the channel source, **Manual Tuning** may be supported.
- **Digital Channel Tuning**: Scans for a digital channel manually and stores in the product. Press the **New** button to search the digital channels. When scanning has finished, a channel is updated in the channel list.
  - When selecting **Aerial** → **Air: Channel, Frequency, Bandwidth**
  - When selecting **Aerial** → **Cable: Frequency, Modulation, Symbol Rate**
- **Analogue Channel Tuning**: Scans for an analogue channel. Press the **New** button to search the channels by adjusting the **Programme, Colour System, Sound System, Channel, Search**.

### 5.1.5 Transfer Channel List


 **MENU** [ ] → **Channel** → **Transfer Channel List** → **ENTER** [ ]

Imports or exports the channel map. You should connect a USB storage to use this function.



- The PIN number input screen appears. Enter your 4 digit PIN number.
- **Import from USB**: Import channel list from USB.
  - **Export to USB**: Export channel list to USB.

### 5.1.6 Fine Tune

 **MENU** [ ] → **Channel** → **Fine Tune** → **ENTER** [ ]

If the signal is weak or distorted, fine tune the channel manually.

(Analogue channels only)



- Fine tuned channels are marked with an asterisk “\*”.
- To reset the fine-tuning, select **Reset**.

## 6.1 Setup

 **MENU** [] → **System** → **Setup** → **ENTER** []

Configure the channels and the time when setting up the product for the first time or when resetting the unit.



The displayed image may differ depending on the model.

## 6.2 Time

 **MENU** [MENU] → **System** → **Time** → **ENTER** [ENTER]

You can configure **Clock Set** or **Sleep Timer**. You can also set the product to automatically turn on or off at a specified time using the **Timer** function.

### 6.2.1 Clock

Set the clock to use the various timer features of the product.

- **Clock Mode:** Set up the current time manually or automatically.
  - **Auto:** Set the current time automatically using the time from a digital channel.



The aerial must be connected in order to set the time automatically.

- **Manual:** Set the current time manually.

- **Clock Set**


Set the **Date** and **Time**.

Select **Clock Set**. Select **Date** or **Time**, and then press [ENTER].

Use the number buttons to enter numbers or press the up and down arrow buttons. Use the left and right arrow buttons to move from one entry field to the next. Press [ENTER] when done. To exit **Clock Set**, select **Close**, and then press [ENTER].



You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

- **Time Zone** (depending on the country): Select your time zone.
  -  This function is only available when the **Clock Mode** is set to **Auto**.
  - When selecting **Manual** in **Time Zone**, **GMT** and **DST** will be activated.

### 6.2.2 Sleep Timer

Automatically shuts off the product after a preset period of time. (**Off** / **30 min** / **60 min** / **90 min** / **120 min** / **150 min** / **180 min**).



Use the up and down arrows to select a period of time, and then press [ENTER]. To cancel **Sleep Timer**, select **Off**.

### 6.2.3 On Timer

Set **On Timer** so that your product turns on automatically at a time and on a day of your choosing.

- **On Timer:** You can set up three separate **On Timer** configurations. (**On Timer 1**, **On Timer 2**, **On Timer 3**)



You must set the clock before you can use **On Timer**.

- **Setup:** Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **On Timer** to turn on your product.



The check mark indicates days you've selected.

- **Time:** Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.
  - **Volume:** Set the desired volume level. Use the left and right arrow buttons to change the volume level.
  - **Source:** Select the input source of your choice.
  - **Music / Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files you want played when the product on automatically.
- 
- If there is no music file on the USB device or you don't select a folder containing a music file, the Timer function does not operate correctly.
  - If there is only one photo file in the USB, the Slide Show will not play.
  - If a folder name is too long, the folder cannot be selected. Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.
  - We recommend that you use a USB memory stick and a multi card reader when using **On Timer**. The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because the product can take too long to recognize these devices.

### 6.2.4 Off Timer

You can set up three separate **Off Timer** configurations. (**Off Timer 1**, **Off Timer 2**, **Off Timer 3**)



You must set the clock before you can use **Off Timer**.

- **Setup:** Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **Off Timer** to turn off your product.



The check mark indicates days you've selected.

- **Time:** Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.

## 6.3 Language



**MENU** [ ] → **System** → **Language** → **ENTER** [ ]

Set the menu language.



A change to the language setting will only be applied to the onscreen menu display. It will not be applied to other functions on your PC.

- **Menu Language:** Set the menu language.
- **Teletext Language** (depending on the country): Set a desired language for teletext.

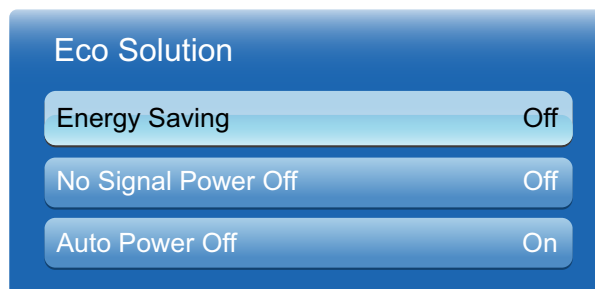


English is the default in cases where the selected language is unavailable in the broadcast.

- **Preferred Language:** Select a language, which will be the default language when a channel is selected.

## 6.4 Eco Solution

 **MENU** [] → **System** → **Eco Solution** → **ENTER** []



The displayed image may differ depending on the model.

### 6.4.1 Energy Saving

Save power with the **Energy Saving** feature.

While Energy Saving mode is active, the product power consumption will be controlled to save power.

- **Off / Low / Medium / High / Picture Off**

### 6.4.2 No Signal Power Off

To avoid unnecessary energy consumption, you can set how long you want the product to remain on if it's not receiving a signal.

- **Off / 15 min / 30 min / 60 min**




- Disabled when an attached PC is in power saving mode.
- The default setting is 15 min. for this product.
- The product will automatically power off at a specified time. The time can be changed as required.

### 6.4.3 Auto Power Off (Off / On)

The product will automatically turn off if you don't press a button on the remote or touch a button on product front panel within 4 hours to prevent overheating.

## 6.5 Subtitle

 **MENU** [ ] → **System** → **Subtitle** → **ENTER** [ ]

Use this menu to set the **Subtitle** mode.

### 6.5.1 Subtitle

Switches subtitles on or off.

- **Off / On**

### 6.5.2 Subtitle Mode

Sets the **subtitle mode**.

- **Normal / Hearing Impaired**


### 6.5.3 Subtitle Language

Sets the subtitle language.



- If the programme you are watching does not support the **Hearing Impaired** function, **Normal** automatically activates even if the **Hearing Impaired** mode is selected.
- English is the default in cases where the selected language is unavailable in the broadcast.

## 6.6 Digital Text

 **MENU** [ ] → **System** → **Digital Text** → **ENTER** [ ]

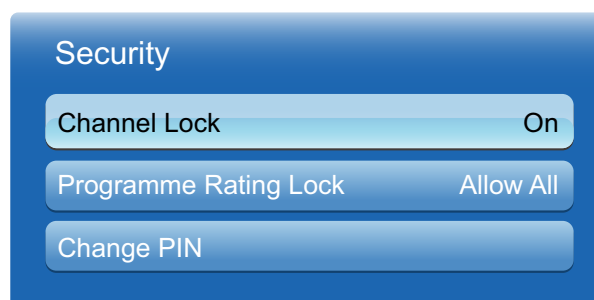
If the programme broadcasts with digital text, this feature is enabled.

- **Disable / Enable**

## 6.7 Security

 **MENU** [MENU] → **System** → **Security** → **ENTER** [ENTER]

Every time you access the Security functions, the PIN screen will appear and the default PIN number is "0-0-0-0". The PIN screen closes and the **Security** menu appears.



The displayed image may differ depending on the model.

### 6.7.1 Channel Lock (Off / On)

Lock channels in **Channel** menu to prevent unauthorized users, such as children, from watching unsuitable programme.



Available only when the **Source** is set to **TV**.

### 6.7.2 Programme Rating Lock

Prevent unauthorized users, such as children, from watching unsuitable programme with a userdefined 4-digit PIN code.



The items of **Programme Rating Lock** differs depending on the country.

### 6.7.3 Change PIN

The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Re-enter the same 4 digits in **Confirm New PIN**. When the Confirm screen disappears, press the **Close** button. The product has memorized your new PIN.



## 6.8 PIP







 **MENU** [  ] → **System** → **PIP** → **ENTER** [  ]



- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the product off while watching in the PIP mode, the PIP function is reset to off. When you turn your product on, you must turn PIP on again to watch in the PIP mode.
- You may notice that the picture in the PIP screen becomes slightly unnatural when you use the main screen to view a game or karaoke.

- PIP Settings

Main picture	Sub picture
PC, Component, HDMI	TV

- **PIP (Off / On)**: Activate or deactivate the PIP function.
- **Channel**: Select the channel for the sub-screen.
- **Size** (  ,  ): Select a size for the sub picture.
- **Position** (  ,  ,  ,  ): Select a position for the sub-picture.
- **Sound Select (Main / Sub)**: You can choose to listen to the sound from the **Main** picture or the **Sub** picture.

## 6.9 Auto Protection Time

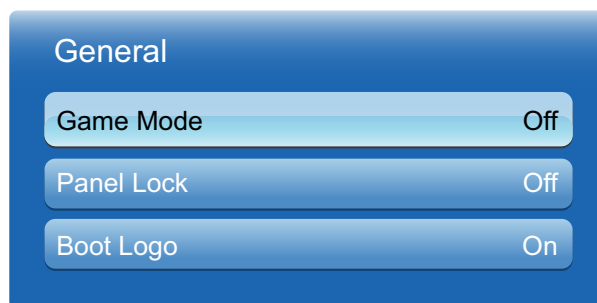
 MENU [ ] → System → Auto Protection Time → ENTER [ ]

If the screen displays a still image for a certain period of time you define, the product activates the screen saver to prevent the formation of burnt in ghost images on the screen.

- Off / 2 hours / 4 hours / 8 hours / 10 hours

## 6.10 General

 MENU [ ] → System → General → ENTER [ ]



The displayed image may differ depending on the model.

### 6.10.1 Game Mode

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.



- Precautions and limitations for **Game Mode**
  - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the **System** menu.
  - If you display the product menu in **Game Mode**, the screen shakes slightly.
- **Game Mode** is not available when the input source is set to **PC**.
- After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
- If **Game Mode** is **On**:
  - **Picture Mode** is set to **Standard** and **Sound Mode** is set to **Movie**.

### 6.10.2 Panel Lock

Lock or unlock all the keys on the panel.

### 6.10.3 Boot Logo

Display Samsung logo when the product is turned on.

## 6.11 Anynet+(HDMI-CEC)

 **MENU** [  ] → **System** → **Anynet+(HDMI-CEC)** → **ENTER** [  ]

### 6.11.1 Anynet+(HDMI-CEC)

What is **Anynet+**?



**Anynet+** is a function that enables you to control all connected Samsung devices that support **Anynet+** with your Samsung product remote. The **Anynet+** system can be used only with Samsung devices that have the **Anynet+** feature. To be sure your Samsung device has this feature, check if there is an **Anynet+** logo on it.



- You can only control Anynet+ devices using the product remote control, not the buttons on the product.
- The product remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.
- For instructions explaining how to connect Anynet+ external devices, refer to the device's user manual. You must connect an Anynet+ device using an HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- While in PIP mode, Anynet+ functions only when an AV device is connected as the primary display. It does not work if the AV device is connected as a secondary display.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.
- However, you can connect only one Anynet+ Home Theatre. To connect an Anynet+ Home Theatre, connect the Home Theatre to the product using an HDMI cable then.

### Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the product.

Anynet+ Menu	Description
<b>View PC</b>	Changes Anynet+ mode to PC mode.
<b>Device List</b>	Shows the Anynet+ device list.
(device_name) <b>MENU</b>	Shows the menu of the connected device menus. E.g. if a DVD player is connected, the disc menu of the DVD player will appear.
(device_name) <b>Tools</b>	Shows the tools menu of the connected device. E.g. if a DVD player is connected, the tools menu of the DVD player will appear.  Depending on the device, this menu may not be available.
(device_name) <b>Title Menu</b>	Shows the title menu of the disc in the connected device. E.g. If a DVD player is connected, the title menu of the movie in the DVD player will appear.  Depending on the device, this menu may not be available.
<b>Receiver</b>	Sound is played through the <b>Receiver</b> .

#### 6.11.2 Auto Turn Off (No / Yes)

Setting an **Anynet+** Device to turn Off automatically when the product is turned off.




The active source on the product remote must be set to product to use the **Anynet+** function.

If you set **Auto Turn Off** to **Yes**, connected external devices are also turned off when the product is turned off. If an external device is still recording, it may or may not turn off.

### Switching between Anynet+ Devices

1 Press the **TOOLS** button, select **Anynet+ (HDMI-CEC)**, and then press [].

2 Select **Device List**, and then press the [] button.



If you cannot find a device you want, select **Refresh** to refresh the list.

3 Select a device, and then press the [] button. You can switch to the selected device.



The **Device List** menu appears only when you set **Anynet+ (HDMI-CEC)** to **On** in the **System** menu.

- Switching to the selected device may take up to 2 minutes. You cannot cancel the switching operation while switching is in progress.

- If you have selected an Anynet+ device by pressing the **SOURCE** button and then selecting its input source, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **Device List**.

### 6.11.3 Receiver

You can listen to sound through a **Receiver** (i.e. Home Theatre) instead of the product Speaker. To listen to sound through a receiver, go to **Receiver** screen (**System** → **Anynet+ (HDMI-CEC)** → **Receiver**). Then select **Receiver** and set to **On**.



If your **Receiver** supports audio only, it may not appear in the device list.

### Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	<ul style="list-style-type: none"> <li>• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.</li> <li>• You can connect only one receiver (home theatre).</li> <li>• Check if the Anynet+ device power cord is properly connected.</li> <li>• Check the Anynet+ device's Video/Audio/HDMI cable connections.</li> <li>• Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the Anynet+ setup menu.</li> <li>• Check whether the remote control is Anynet+ compatible.</li> <li>• If you have removed and then reconnected the HDMI cable, please make sure to search devices again or turn your product off and on again.</li> <li>• Check if the Anynet+ function of the Anynet device is set on.</li> </ul>
I want to start Anynet+.	<ul style="list-style-type: none"> <li>• Check if the Anynet+ device is properly connected to the product and check if the <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the Anynet+ Setup menu.</li> <li>• Press the <b>TOOLS</b> button to display the Anynet+ menu and select a menu you want.</li> </ul>
I want to exit Anynet+.	<ul style="list-style-type: none"> <li>• Select <b>View PC</b> in the Anynet+ menu.</li> <li>• Press the <b>SOURCE</b> button on the product remote control and select a non- Anynet+ device.</li> </ul>

Problem	Possible Solution
The message “Connecting to Anynet+ device...” appears on the screen.	<ul style="list-style-type: none"> <li>You cannot use the remote control when you are configuring Anynet+ or switching to a view mode.</li> <li>Use the remote control after the product has completed Anynet+ configuration or has finished switching to Anynet+.</li> </ul>
The connected device is not displayed.	<ul style="list-style-type: none"> <li>Check whether or not the device supports Anynet+ functions.</li> <li>Check whether or not the HDMI cable is properly connected.</li> <li>Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the Anynet+ setup menu.</li> <li>Search Anynet+ devices again.</li> <li>Anynet+ requires an HDMI connection. Make sure the device is connected to your product with an HDMI cable.</li> <li>Some HDMI cables may not support Anynet+ functions.</li> <li>If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please repeat the device scan.</li> </ul>

## 6.12 DivX® Video On Demand

 **MENU** [  ] → **System** → **DivX® Video On Demand** → **ENTER** [  ]

Shows the registration code authorized for the product. If you connect to the DivX web site and register using that code, you can download the VOD registration file.



For more information about DivX® VOD, visit “<http://vod.divx.com>”.

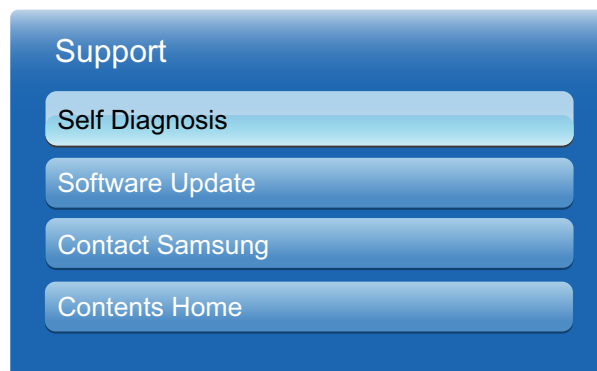
## 6.13 Common Interface

 **MENU** [  ] → **System** → **Common Interface** → **ENTER** [  ]

- **CI Menu:** This enables the user to select from the CAM-provided menu. Select the CI Menu based on the menu PC Card.
- **CAM video transcoding**
- **Application Info:** View information on the CAM inserted into the CI slot and on the “CI or CI+ CARD” which is inserted into the CAM. You can install the CAM anytime whether the product is on or off.
  - 1 Purchase a CI CAM module at your nearest dealer or by phone.
  - 2 Firmly insert the “CI or CI+ CARD” into the CAM in the direction of the arrow.
  - 3 Insert the CAM with the “CI or CI+ CARD” into the common interface slot, in the direction of the arrow so that it aligns parallel with the slot.
  - 4 Check if you can see a picture on a scrambled signal channel.

## 7.1 Self Diagnosis

**Self Diagnosis** might take few seconds, this is part of the normal operation of the product.



The displayed image may differ depending on the model.

### 7.1.1 Picture Test (Yes / No)

Use to check for picture problems.

### 7.1.2 Sound Test (Yes / No)

Use the built-in melody sound to check for sound problems.

### 7.1.3 Signal Information

(digital channels only)

HDTV channel's reception quality is either perfect or the channels are unavailable. Adjust your aerial to increase signal strength.

### 7.1.4 Reset

Reset all settings to the factory defaults except network settings.



- The PIN input screen appears before the setup screen.
- Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.



## 7.2 Software Update

 **MENU** [MENU] → **Support** → **Software Update** → **ENTER** [ENTER]

The **Software Update** menu lets you upgrade your product software to the latest version.

- **Current Version:** This is the software version already installed in the product.



Be careful not to turn off the power until the upgrade is complete. The product will turn off and on automatically after completing the Software upgrade. When you upgrade software, all video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

### 7.2.1 By USB

To upgrade by USB, follow these steps.

- 1 Visit [www.samsung.com](http://www.samsung.com).
- 2 Download the latest USB software upgrade exe archive to your computer.
- 3 Extracts the exe archive to your computer. You should have a single folder with the same name as the exe file.
- 4 Copy the folder to a USB flash drive.
- 5 Turn on the product, and then insert the USB flash drive into the USB port of the product.
- 6 In the product menu, go to **Support** → **Software Update**.
- 7 Select **By USB**.



Please be careful not to remove the USB drive until the upgrade is complete.

### 7.2.2 Alternative Software

- **Alternative Software**

The **Alternative Software** option lets you upgrade using a file the product downloaded earlier, but you decided not to install immediately, or a file downloaded by the product in Standby Mode. To upgrade By **Alternative Software**, follow these steps.

- 1 If upgrade software has been downloaded, you will see the software version number to the right of **Alternative Software**.
- 2 Select **Alternative Software**, and then press the [↵] button.
- 3 The product displays a message asking if you want to upgrade. Select **Yes**. The product begins the upgrade.
- 4 When the upgrade is complete, the product turns off automatically, and then turns on.

## 7.3 Contact Samsung

 **MENU** [≡] → **Support** → **Contact Samsung** → **ENTER** [↵]

View this information when your product does not work properly or when you want to upgrade the software. You can find information regarding our call centres and how to download products and software.

## 7.4 Contents Home

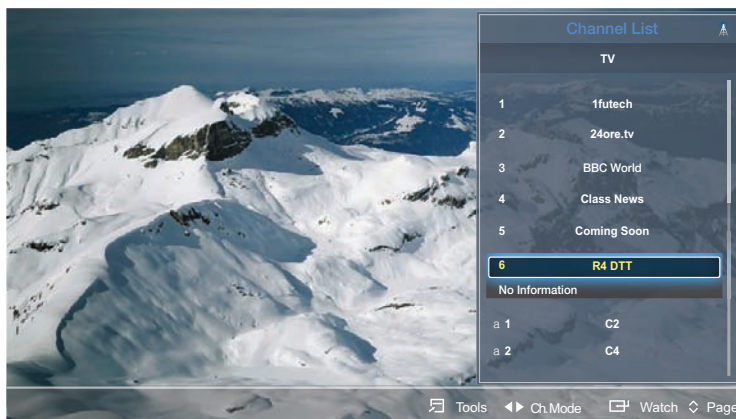
 **MENU** [ ] → **Support** → **Contents Home** → **ENTER** [↵]

Press the **CONTENT** button to select the desired menu. Each screen will be displayed.

### 7.4.1 Channel List

You can view all the channel searched.

When you press the **CH LIST** button on the remote control, **Channel List** screen will be displayed at once.







The displayed image may differ depending on the model.

- **All**: Shows all currently available channels.
- **TV**: Shows all currently available TV channels.
- **Radio**: Shows all currently available radio channels.
- **Data/Other**: Shows all currently available MHP or other channels.
- **Analogue**: Shows all currently available analogue channels.
- **Favourites 1-5**: Shows all favourites channels.



Using the control buttons with the **Channel List**.

-  (**Tools**): Displays the option menu.
-  (**Ch. Mode / Channel**): Move to the **All**, **TV**, **Radio**, **Data/Other**, **Analogue** or **Favourites 1-5**.
-  (**Watch / Information**): Watches the channel you selected. / Displays details of the selected programme.
-  (**Page**): Move to next or previous page.

### How to use Schedule Viewing in Channel List (digital channels only)

When you set the **Schedule Viewing** in **Channel List**, you can only set the programme in **Programme View**.

- 1 Press the **CH LIST** button, then select a desired digital channel.
- 2 Press **TOOLS** button, and then select the **Programme View**. The programme list for that channel appears.
- 3 Press the **▲/▼** buttons to select the desired programme, then press the **ENTER (Information)** or **INFO** button.
- 4 Select **Schedule Viewing**, then press the **ENTER** button when done.



If you want to cancel **Schedule Viewing**, follow steps 1 through 3. Select **Cancel schedule**.

### Using Option Menu

Set each channel using the **Channel List** menu options (**Programme View**, **Edit Favourites**, **Lock/Unlock**, **Edit Channel Name**, **Edit Channel Number**, **Delete**, **Information**, **Sort**, **Change Aerial**, **Edit Mode**).

Option menu items may differ depending on the channel status.

- 1 Select a channel and press the **TOOLS** button.
  - 2 Select a function and change its settings.
- **Programme View**: Displays the programme when digital channel is selected.
  - **Edit Favourites**: Set channels you watch frequently as favourites. Add or delete the selected channel in **Favourites 1-5**.
    - 1 Select the **Edit Favourites**, then press the [**↔**] button.
    - 2 Press the [**↔**] button to select **Favourites 1-5**, then press the **OK** button.



One favourites channel can be added in several of favourites among **Favourites 1-5**.

- **Lock/Unlock**: Lock a channel so that the channel cannot be selected and viewed.





This function is available only when the **Channel Lock** is set to **On**.

- **Edit Channel Name** (Analogue channels only): Assign your own channel name.
- **Edit Channel Number**: Edit the number by pressing the number buttons desired.




Some area may not be able to support **Edit Channel Name** and **Edit Channel Number** function.

- **Delete**: You can delete a channel to display the channels you want.
- **Information**: Displays details of the selected programme.
- **Sort** (digital channels only): Changes the list ordered by channel number or channel name.
- **Change Aerial**: Switches to **Air** or **Cable**.
- **Edit Mode**: You can select desired channels and edit it.

- **Edit Favourites:** Set the selected channels you watch frequently as favourites.  
 The **Edit Favourites** screen has five groups (**Favourites 1**, **Favourites 2**, etc.). You can add a favourite channel to any one of the groups. Press the ▲/▼ buttons to select a group.
- **Lock/Unlock:** Lock a channel so that the channel cannot be selected and viewed.  

  - This function is available only when the **Channel Lock** is set to **On**.
  - The PIN input screen appears. Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.
- **Delete:** You can delete a channel to display the channels you want.
- **Deselect:** Deselect the selected channels.
- **Select All:** Select all the channels in the channel list.

### Using Option Menu

Set each channel using the menu options (**Edit Favourites**, **Lock/Unlock**, **Delete**, **Deselect**, **Select All**).

- 1 Press the **TOOLS** button in **Channel List** screen, then select the **Edit Mode**. A check box appears to the left of the channel.
- 2 Press the ▲/▼ buttons to select the desired channel, then press the **ENTER** button. The (✓) mark indicates the channel you've selected.  

  - You can select more than one channel.
  - Press the **ENTER** again to deselect the channel.
- 3 Press the **TOOLS** button, then select a function and change its settings.

### 7.4.2 Guide

The EPG (Electronic Programme Guide) information is provided by broadcasters. Using Programme schedules provided by broadcasters, you can specify Programme you want to watch in advance so that the channel automatically changes to the selected Programme channel at the specified time. Programme entries may appear blank or out of date depending on a channel status.



The displayed image may differ depending on the model.

- **A**: Moves to the reserved programmes in **Sche. Mgr**.
- **B**: Viewing the list of programmes to be broadcasted before 24 hours.
- **C**: Viewing the list of programmes to be broadcasted after 24 hours.
- **D**: Select the type of channels you want to display on the **Channel List** window. (**All**, **TV**, **Radio**, **Data/Other**, **Favourites 1-5**)
- **i**: Displays details of the selected programme.
- **◀▶**: Move to previous or next page.
- **📺** (**Watch / Schedule**)
  - When selecting the current programme, you can watch the selected programme.
  - When selecting the future programme, you can reserve to watch the selected programme. To cancel the schedule, press the **ENTER** button again and select **Cancel schedule**.

### 7.4.3 Media Play

Enjoy videos, photos, music files saved on a USB Mass Storage Class (MSC) device.



The displayed image may differ depending on the model.

#### Connecting a USB Device

- 1 Turn on your Product.
- 2 Connect a USB device containing photo and music files to the USB jack on the side of the Product.
- 3 When USB is connected to the Product, popup window appears. Then you can select **New device connected..**



- It might not work properly with unlicensed multimedia files.
- Need-to-Know List before using **Media Play**.
- MTP (Media Transfer Protocol) is not supported.
- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this product.
- **Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers and USB HDD (USB HUB are not supported). Devices should be connected directly to the Product USB port.
- USB (HDD) is not supported.
- Before connecting your device to the product, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360 x 8640 pixels.
- For unsupported or corrupted files, the "Not Supported File Format" message is displayed.

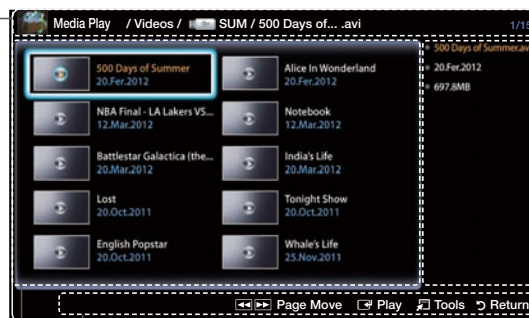
- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.
- If the product has been no input during time set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when connected to the product.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the product is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- **Media Play** only supports sequential jpeg format.

## Screen Display

Move to the desired file using the ▲/▼/◀/▶ buttons and then press the [↵] button. The file is played.

**Media Play** screen may differ depending on the way to enter the screen.

**Information:**  
You can ascertain the selected device name, contents mode, folder/file name, page.



**Information:**  
You can ascertain the name, size and created date of the selected file.

**File List Section:**  
You can confirm the files and groups that are sorted by category.

### Operation Buttons:

- [↵] **Play**: Plays the selected file.
- [⚙] **Tools**: Displays the option menu.
- [⏮] **Return**: Move to the previous step.
- [⏮][⏭]/[⏪][⏩] **Page Move**: Move to up or down page.



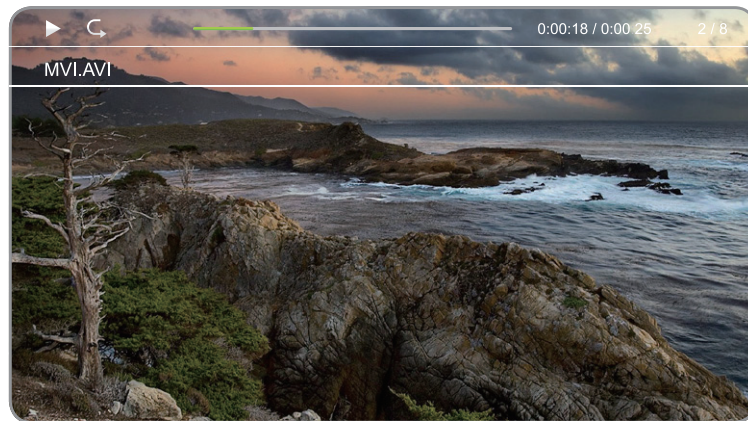
## Videos

### Playing Video

- 1 Press the ▲/▼/◀/▶ button to select the desired video in the file list.
- 2 Press the **ENTER** [↵] button or [▶] (Play) button.
  - The selected file name is displayed on the top with its playing time.
  - If video time information is unknown, play time and progress bar are not displayed.
  - During video playback, you can search using ◀ and ▶ button.
  - You can use ◀◀ (REW) and ▶▶ (FF) buttons during playback.



In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.



The displayed image may differ depending on the model.

## Supported Subtitle Formats

## External

Name	File extension
MPEG-4 Timed text	.txt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
Powerdivx	.psb

## Internal

Name	Container	Format
Xsub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

## Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi	AVI MKV ASF MP4 3GP VRO VOB PS TS	DivX 3.11/4.x/ 5.x/6.x	1920 x 1080	6~30	30	AC3
*.mkv		MPEG4 SP / ASP				LPCM
*.asf						ADPCM (IMA, MS)
*.wmv		H.264 BP / MP / HP				AAC
*.mp4			HE-AAC			
*.3gp		Motion JPEG	640 x 480		8	WMA
*.vro						DD+
*.mpg		Window Media Video v9	1920 x 1080		30	MPEG
*.mpeg		MPEG2				(MP3)
*.ts		MPEG1				DTS Core
*.tp						G.711(A-Law, μ-Law)
*.trp						
*.mov						
*.flv						
*.vob						
*.svi						
*.m2ts						
*.mts						
*.divx						

### Other Restrictions



- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- Some USB/digital camera devices may not be compatible with the player.
- The menu can be displayed late if the video is over 10Mbps(bit rate).

Name	Format
<ul style="list-style-type: none"><li>• Supports up to H.264, Level 4.1</li><li>• H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.</li><li>• GMC is not supported.</li></ul>	<ul style="list-style-type: none"><li>• WMA 10 Pro supports up to 5.1 channel and M2 profile. (LBR mode of M0 is not supported)</li><li>• WMA lossless audio is not supported.</li></ul>

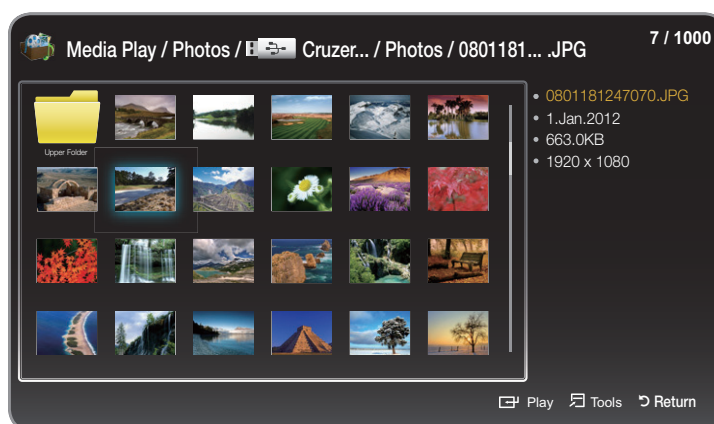
## Photos

### Viewing a Photo (or Slide Show)

- 1 Press the ▲/▼/◀/▶ button to select the desired photo in the file list.
- 2 Press the **ENTER** [↵] button.
  - During the slide show, all files in the file list will be displayed in order.
  - When you press the [▶] (Play) button in the file list, slide show will be started immediately.
  - During the slide show, you can adjust the slide show speed using ◀◀ (REW) or ▶▶ (FF) button.
  - You can move to other file using ◀ or ▶ button.



Music files can be automatically played during the slide show if the **Background Music On** is set.



The displayed image may differ depending on the model.

### Supported Picture Formats

File Extension	Format	Resolution
*.jpg	JPEG	15360 x 8640
*.bmp	BMP	1920 x 1080
*.mpo	MPO	15360 x 8640

## Music

### Playing Music

1 Press the ▲/▼/◀/▶ button to select the desired **Music** in the file list.

2 Press the **ENTER** [↵] button.





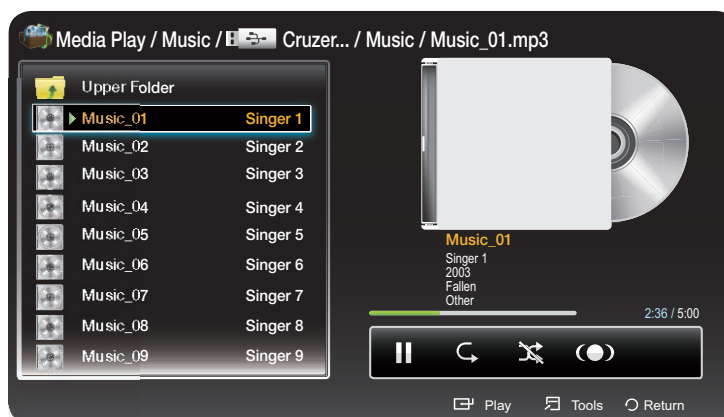
- Only displays the files with the file extension in following supported music formats list. Other file extensions are not displayed, even if they are saved on the same USB device.
- If the sound is abnormal when playing MP3 files, adjust the **Equaliser** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)



Using the playback menu

- Press the ◀/▶ button to select the desired menu.

- Play / Pause:** You can start or stop a music. Alternatively, the  or  button on the remote.
- Repeat Mode (Off / One Song / All):** You can play music files repeatedly.
- Shuffle Mode (Off / On):** You can play the music randomly.
- Sound Mode (Standard / Music / Movie / Clear Voice / Amplify):** You can adjust the sound setting.




The displayed image may differ depending on the model.

### Playing selected music

1 Press the **TOOLS** [⚙] button and select **Play Selection**.

2 Select the desired music.



The  mark appears to the left of the selected files.

3 Press the **TOOLS** [⚙] button and select **Play Selection**.




You can select or deselect all music pressing the **Select All** / **Deselect All**.


## Supported Music Formats

File Extension	Type	Codec	Remark
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac *.3ga	MPEG4	AAC	
*.flac	FLAC	FLAC	Seek is not supported. Supports up to 2ch.
*.ogg	OGG	Vorbis	Supports up to 2ch.
*.wma	WMA	WMA	WMA 10 Pro supports up to 5.1 channel and M2 profile. (LBR mode of M0 is not supported)

## Media Play - Additional Functions

## Videos/Photos/Music Play Option menu

Press the **TOOLS**[>] button and you can make the following operations.

Category	Operations	Videos	Photos	Music
<b>Title Search</b>	You can move the other file directly.	✓		
<b>Time Search</b>	<p>You can search the video using ◀ and ▶ button at one minute interval or entering the number directly.</p> <p> It may not be supported depending on the input source.</p>	✓		
<b>Repeat Mode</b>	You can play media files repeatedly.	✓		
<b>Picture Size</b>	You can adjust the picture size to your preference.	✓		
<b>Picture Mode</b>	You can adjust the picture setting.	✓	✓	
<b>Sound Mode</b>	You can adjust the sound setting.	✓	✓	
<b>Audio language</b>	You can change the audio language if the video has more than one language.	✓		
<b>Subtitle</b>	You can set the subtitle <b>On</b> / <b>Off</b> .	✓		

Category	Operations	Videos	Photos	Music
<b>Subtitle Settings</b>	You can play the video with subtitles. This function only works if the subtitles are the same file name as the video.	✓		
<b>Start Slide Show / Stop Slide Show</b>	You can start or stop a slide show.		✓	
<b>Slide Show Speed</b>	You can select the slide show speed during the slide show.		✓	
<b>Background Music On / Background Music Off</b>	You can set on/off background music when watching a slide show.		✓	
<b>Background Music Setting</b>	You can select background music when watching a Slide Show.		✓	
<b>Zoom</b>	You can zoom into images in full screen mode.		✓	
<b>Rotate</b>	You can rotate images in full screen mode.		✓	
<b>Edit playlist</b>	You can edit the playlist when playing the desired music.			✓
<b>Play selection</b>	Select and play multiple files.			✓
<b>Information</b>	You can see detailed information about the played file.	✓	✓	✓



#### 7.4.4 Schedule Manager

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch. Set the current time first to use this function.

##### Using Option Menu

Set each channel using the menu options (**Cancel schedule**, **Edit Schedule**, **Schedule manually**, **View Guide**).

- 1 Press the **TOOLS** button to select the **Schedule manually**.



You can press the **A** (**Schedule manually**) directly on the **Schedule Manager** screen.

- 2 Press the **▲/▼/◀/▶** or number buttons to set the **Aerial**, **Channel**, **Repeat**, **Date**, **Start Time**.

- **Aerial**: Select the desired broadcasting signal.
- **Channel**: Select the desired channel.
- **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday** to set at your convenience. If you select **Manual**, you can set the day you want.
- **Date**: You can set the desired date.
- **Start Time**: You can set the start time you want.



If you want to edit or cancel the schedule, select the reserved schedule on the **Reserved Programmes**. Press the **TOOLS** button, then select the **Edit Schedule** or **Cancel schedule**.

### 7.4.5 Source

**Source** allows you to select a variety of sources and change source device names.

You can display the screen of a source device connected to the product. Select a source from Source List to display the screen of the selected source.



The input source can also be changed by using the **SOURCE** button on the remote control.



The screen may not display correctly if an incorrect source is selected for the source device you want to convert to.

#### Edit Name



**MENU** [ ] → **Support** → **Contents Home** → **Source** → **TOOLS** → **Edit Name**  
→ **ENTER** [ ]

You can rename a connected source device.

- Sometimes the screen will not display properly unless the name of a source device is specified in **Edit Name**. In addition, it is best to rename the source device in **Edit Name** to obtain optimal picture quality.



The list can include the following source devices. Source devices on the list differ depending on the selected source.

- ▣ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI Devices / TV / IPTV / Blu-ray / HD DVD / DMA**



Available settings in the **Picture** menu depend on the current source and settings made in **Edit Name**.

- When connecting a PC to the **HDMI IN 1 (DVI)** port with HDMI cable, you should set the product to **PC** mode under **Edit Name**.
- When connecting a PC to the **HDMI IN 1 (DVI)** port with HDMI to DVI cable, you should set the product to **DVI PC** mode under **Edit Name**.
- When connecting an AV devices to the **HDMI IN 1 (DVI)** port with HDMI to DVI cable, you should set the product to **DVI Devices** mode under **Edit Name**.

#### Information



**MENU** [ ] → **Support** → **Contents Home** → **Source** → **TOOLS** → **Information**  
→ **ENTER** [ ]

You can see detailed information about the selected external device.

### Refresh



**MENU** [ ] → **Support** → **Contents Home** → **Source** → **TOOLS** → **Refresh** → **ENTER**



In the **Source**, If the external devices are not displayed, press the **TOOLS** button to select **Refresh**.  
Search for connected devices.

## 8.1 Requirements Before Contacting Samsung Customer Service centre

### 8.1.1 Testing the Product



Before calling Samsung Customer Service Centre, test your product as follows. If the problem persists, contact Samsung Customer Service Centre.

Check if your product is operating normally by using the product test function.

If the screen remains blank while the power LED blinks even when the product is correctly connected to a PC, perform product testing.

- 1 Power off both the PC and product.
- 2 Disconnect all the cables from the product.
- 3 Power on the product.
- 4 If **No Signal** is displayed, the product is operating normally.



If the screen remains blank, check the PC system, video controller and cable.

### 8.1.2 Checking the Resolution and Frequency

**Not Optimum Mode** will briefly be displayed if a mode that exceeds a supported resolution is selected (refer to Supported Resolutions).

## 8.1.3 Check the followings.

Installation issue (PC mode)	
The screen keeps switching on and off.	<p>Check the cable connection between the product and PC, and ensure the connection is secure.</p> <p>("2.2 Connecting and Using a PC")</p>
Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.	<p>The blank spaces found on the screen have nothing to do with the product.</p> <p>Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card.</p> <p>If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version.</p> <p>(Please contact the graphics card or computer manufacturer for further details about how to adjust the screen settings.)</p>
Screen issue	
The power LED is off. The screen will not switch on.	<p>Make sure that the power cord is connected.</p> <p>("2.2 Connecting and Using a PC")</p>
<b>No Signal</b> is displayed on the screen (refer to "Connecting to a PC").	<p>Check that the product is connected correctly with a cable</p> <p>("2.2 Connecting and Using a PC")</p>
	<p>Check that the device connected to the product is powered on.</p>
<b>Not Optimum Mode</b> is displayed.	<p>This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.</p>
	<p>Refer to the Standard Signal Mode Table and set the maximum resolution and frequency according to the product specifications.</p>
The images on the screen look distorted.	<p>Check the cable connection to the product</p> <p>("2.2 Connecting and Using a PC")</p>

Screen issue	
The screen is not clear. The screen is blurry.	Adjust <b>Coarse</b> and <b>Fine</b> .
	Remove any accessories (video extension cable, etc) and try again.
	Set the resolution and frequency to the recommended level.
The screen appears unstable and shaky.	Check that the resolution and frequency of the PC and graphics card are set within a range compatible with the product. Then, change the screen settings if required by referring to the Additional Information on the product menu and the Standard Signal Mode Table.
There are shadows or ghost images left on the screen.	
The screen is too bright. The screen is too dark.	Adjust <b>Brightness</b> and <b>Contrast</b> .
Screen colour is inconsistent.	Go to <b>Picture</b> and adjust the <b>Colour Temp.</b> settings.
The colours on the screen have a shadow and are distorted.	Go to <b>Picture</b> and adjust the <b>Colour Temp.</b> settings.
White does not really look white.	Go to <b>Picture</b> and adjust the <b>Colour Temp.</b> settings.
There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.
Sound issue	
There is no sound.	Check the connection of the audio cable or adjust the volume ("2.2 Connecting and Using a PC")
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software programme.

Remote control issue	
The remote control does not work.	Make sure that the batteries are correctly in place (+/-).
	Check if the batteries are flat.
	Check for power failure.
	Make sure that the power cord is connected.
	Check for any special lighting or neon signs switched on in the vicinity.
Source device issue	
A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.

## 8.2 Q &amp; A

Question	Answer
How can I change the frequency?	<p>Set the frequency on your graphics card.</p> <ul style="list-style-type: none"><li>• "Windows XP": Go to <b>Control Panel</b> → <b>Appearance and Themes</b> → <b>Display</b> → <b>Settings</b> → <b>Advanced</b> → <b>Monitor</b> and adjust the frequency in <b>Monitor Settings</b>.</li><li>• "Windows ME/2000": Go to <b>Control Panel</b> → <b>Display</b> → <b>Settings</b> → <b>Advanced</b> → <b>Monitor</b> and adjust the frequency in <b>Monitor Settings</b>.</li><li>• "Windows Vista": Go to <b>Control Panel</b> → <b>Appearance and Personalization</b> → <b>Personalize</b> → <b>Display Settings</b> → <b>Advanced Settings</b> → <b>Monitor</b> and adjust the frequency in <b>Monitor Settings</b>.</li><li>• "Windows 7": Go to <b>Control Panel</b> → <b>Appearance and Personalization</b> → <b>Display</b> → <b>Adjust resolution</b> → <b>Advanced Settings</b> → <b>Monitor</b> and adjust the frequency in <b>Monitor Settings</b>.</li></ul>



Question	Answer
How can I change the resolution?	<ul style="list-style-type: none"> <li>• "Windows XP": Go to <b>Control Panel → Appearance and Themes → Display → Settings</b> and adjust the resolution.</li> <li>• "Windows ME/2000": Go to <b>Control Panel → Display → Settings</b> and adjust the resolution.</li> <li>• "Windows Vista": Go to <b>Control Panel → Appearance and Personalization → Personalize → Display Settings</b> and adjust the resolution.</li> <li>• "Windows 7": Go to <b>Control Panel → Appearance and Personalization → Display → Adjust Resolution</b> and adjust the resolution.</li> </ul>
How do I set power-saving mode?	<ul style="list-style-type: none"> <li>• Windows XP: Set power-saving mode in <b>Control Panel → Appearance and Themes → Display → Screen Saver Settings</b> or BIOS SETUP on the PC.</li> <li>• Windows ME/2000: Set power-saving mode in <b>Control Panel → Display → Screen Saver Settings</b> or BIOS SETUP on the PC.</li> <li>• Windows Vista: Set power-saving mode in <b>Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings</b> or BIOS SETUP on the PC.</li> <li>• Windows 7: Set power-saving mode in <b>Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings</b> or BIOS SETUP on the PC.</li> </ul>



Refer to the user manual for your PC or graphics card for further instructions on adjustment.

## 9.1 General

Model Name		H32B	H40B
Panel	Size	32 inches (80 cm)	40 inches (101 cm)
Optimum resolution		1366 x 768 @ 60 Hz	1920 x 1080 @ 60 Hz
Audio output		10 W + 10 W	
Dimensions (W x H x D) / Weight (without stand)		738.8 x 436.7 x 93.3 mm / 29.1 x 17.2 x 3.7 inches 5.8 kg / 12.8 lbs	927.6 x 551 x 93 mm / 36.5 x 21.7 x 3.7 inches 8.9 kg / 19.6 lbs
Dimensions (W x H x D) / Weight (with stand)		738.8 x 493.3 x 191.7 mm / 29.1 x 19.4 x 7.5 inches 6.4 kg / 14.1 lbs	927.6 x 606.5 x 227.6 mm / 36.5 x 23.9 x 9 inches 10.9 kg / 24 lbs
TV System		Analogue: B/G, D/K, L, I (Depending on your country selection) Digital: DVB-T/DVB-C	
Colour / Video System		Analogue: PAL, SECAM, NTSC-4.43, NTSC-3.58, PAL60 Digital: MPEG-2 MP@ML, MPEG-4, H.264/AVC MP@L3, MP@L4.0, HP@L4.0	
Sound System		BG, DK, L, NICAM, MPEG1, DD, DD+, HEAAC	
HDMI IN		Video: 1080 24p, 1080p, 1080i, 720p, 576p, 480p Audio: 2Ch Linear PCM 32/44.1/48kHz, 16/20/24bits.	
Environmental considerations	Operating	Temperature : 50 °F ~ 104°F (10 °C ~ 40°C), Humidity : 10 % ~ 80 %, non-condensing	
	Storage	Temperature: -4°F ~ 140°F (-20°C ~ 60°C), Humidity : 5 % ~ 95 %, non-condensing	



Power Supply : Refer to the label at the back of the product as the standard voltage can vary in different countries.



Plug-and-Play : This product can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the product and PC system optimizes the product settings. Product installation takes place automatically. However, you can customize the installation settings if desired.



Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the panel. This does not affect product performance.



This device is a Class B digital apparatus.



Typical power consumption is measured according to IEC 62087 Ed.2

## 9.2 PowerSaver

The power-saving function of this product reduces power consumption by switching off the screen and changing the colour of the power LED if the product is not used for a specified period of time. The power is not turned off in power-saving mode. To switch the screen back on, press any key on the keyboard or move the mouse. Power-savign mode only functions when the product is connected to a PC with a power-saving function.

PowerSaver		Normal Operation		Power saving mode (PC mode)	Power off (Power Button off)
		Rating	Typical		
Power Indicator		Off		Blinking	On
Power Consumption	H32B	52 W	31 W	less than 0.3 watts	less than 0.3 watts
	H40B	87 W	46 W		



- The displayed power consumption level can vary in different operating conditions or when settings are changed.
- SOG(Sync On Green) is not supported.
- To reduce the power consumption to 0, turn off the switch at the back or disconnect the power cord. Disconnect the power cable if you will not be using the product for an extended period of time (during vacation, etc.).

### 9.3 Preset Timing Modes



- This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Using a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your product.
- Check the frequency when you exchange a CDT product (connected to a PC) for an LCD product. If the LCD product does not support 85Hz, change the vertical frequency to 60Hz using the CDT product before you exchange it with the LCD product.

The screen will automatically be adjusted if a signal that belongs to the following standard signal modes is transmitted from your PC. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank with the power LED on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	H32B	H40B
IBM, 640 x 350	31.469	70.086	25.175	+/-	✓	✓
IBM, 720 x 400	31.469	70.087	28.322	-/+	✓	✓
MAC, 640 x 480	35.000	66.667	30.240	-/-	✓	✓
MAC, 832 x 624	49.726	74.551	57.284	-/-	✓	✓
MAC, 1152 x 870	68.681	75.062	100.000	-/-		✓
VESA, 640 x 480	31.469	59.940	25.175	-/-	✓	✓
VESA, 640 x 480	37.861	72.809	31.500	-/-	✓	✓
VESA, 640 x 480	37.500	75.000	31.500	-/-	✓	✓
VESA, 800 x 600	37.879	60.317	40.000	+/+	✓	✓
VESA, 800 x 600	48.077	72.188	50.000	+/+	✓	✓
VESA, 800 x 600	46.875	75.000	49.500	+/+	✓	✓
VESA, 1024 x 768	48.363	60.004	65.000	-/-	✓	✓
VESA, 1024 x 768	56.476	70.069	75.000	-/-	✓	✓
VESA, 1024 x 768	60.023	75.029	78.750	+/+	✓	✓

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	H32B	H40B
VESA, 1152 x 864	67.500	75.000	108.000	+/+		✓
VESA, 1280 x 720	45.000	60.000	74.250	+/+	✓	✓
VESA, 1280 x 800	49.702	59.810	83.500	-/+		✓
VESA, 1280 x 1024	63.981	60.020	108.000	+/+		✓
VESA, 1280 x 1024	79.976	75.025	135.000	+/+		✓
VESA, 1366 x 768	47.712	59.790	85.500	+/+	✓	✓
VESA, 1440 x 900	55.935	59.887	106.500	-/+		✓
VESA, 1600 x 900(RB)	60.000	60.000	108.000	+/+		✓
VESA, 1680 x 1050	65.290	59.954	146.250	-/+		✓
VESA, 1920 x 1080	67.500	60.000	148.500	+/+		✓



#### Horizontal Frequency


The time required to scan a single line from the left to the right side of the screen is called a horizontal cycle. The reciprocal number of a horizontal cycle is called horizontal frequency. Horizontal frequency is measured in kHz.

#### Vertical Frequency

The product displays a single image multiple times per second (like a fluorescent light) to display what the viewer sees. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz.

## 9.4 Licence



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If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care Centre.

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## Responsibility for the Pay Service (Cost to Customers)



When the service is requested, in spite of in warranty, we may charge you for a visit from a service technician in the following cases.

### Not a product defect

Cleaning of the product, Adjustment, Explanation, Re-installation and etc.

- If a service technician gives instructions on how to use product or simply adjusts options without disassembling product.
- If a defect is caused by external environmental factors (Internet, Antenna, Wired Signal, etc.).
- If a product is reinstalled or devices are connected additionally after installing the purchased product for the first time.
- If a product is reinstalled to move to a different spot or to move to a different house.
- If customer requests instructions on how to use because of another company's product.
- If customer requests instructions on how to use the network or another company's programme.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

### A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair.

If a product damage is caused by;

- external impact or drop.
- use of supplies or separately sold product unspecified by Samsung.
- repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- remodeling or repairing the product by customer.
- using it with incorrect voltage or non-authorized electrical connections.
- not following the "cautions" in User Manual.

### Others

- If product fails by natural disaster (lightning, fire, earthquake, flood damage, etc).
- If consumable components are all used up (Battery, Toner, Fluorescent lights, Head, Vibrator, Lamp, Filter, Ribbon, etc.).



If customer requests a service in case the product has no defect, service fee may be charged. So please read User Manual first.

## Optimum Picture Quality and Afterimage Burn-in Prevention

### Optimum Picture Quality

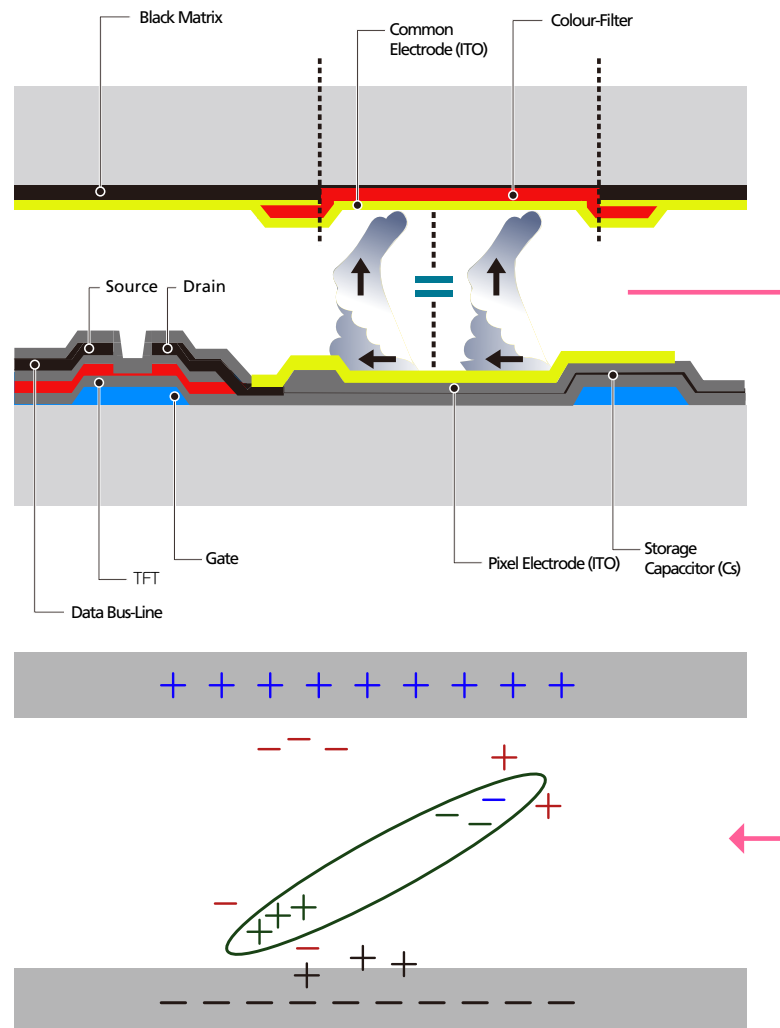
- To enjoy the optimum picture quality, go to Control Panel on your PC and adjust the resolution and refresh rate as follows. The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.
  - Resolution
    - H32B :1366 x 768
    - H40B :1920 x 1080
  - Vertical frequency (refresh rate): 60 ~ 75 Hz
- Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the panel. This does not affect product performance.
  - The number of sub-pixels by panel type
    - H32B :3,147,264
    - H40B :6,220,800
- Run **Auto Adjustment** to improve the picture quality. If noise is still found even after auto adjustment, adjust **Coarse** or **Fine**.
- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Activate power-saving mode or a dynamic screen saver if you will not be using the product for an extended period of time.
- Unlike CDT monitors, TFT-LCD monitors (due to the nature of the panel) can be set to only one resolution to obtain the optimum picture quality. Therefore, setting a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your monitor.

## Prevention of Afterimage Burn-in

What is afterimage burn-in?

Afterimage burn-in should not occur when the LCD panel is operating normally. Normal operation refers to a continuously changing video pattern. If the LCD panel displays a fixed pattern for an extended period of time (more than 12 hours), a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals.

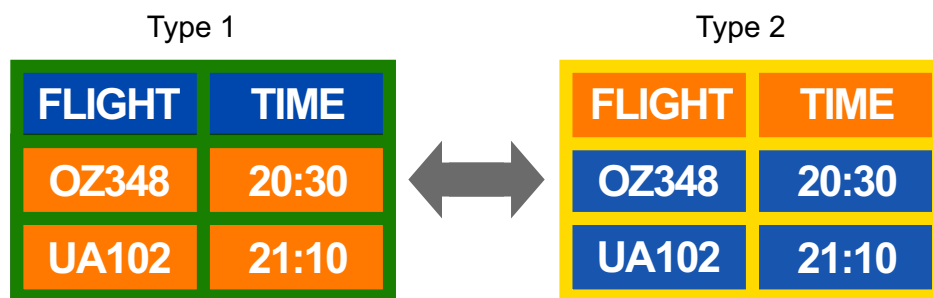
Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner. When this occurs, a previous image can remain on the screen when the pattern changes. To prevent this, the accumulated voltage difference should be reduced.



# Appendix

- Powering Off, Screen Saver and Power Saving Mode
  - Power off the product for 2 hours after using it for 12 hours.
  - Go to Display Properties > Power Supply on your PC and set the product to power off as required.
  - Using a screen saver is recommended.  
It is best to use a single-colour or moving-image screen saver.

- Regular colour Change



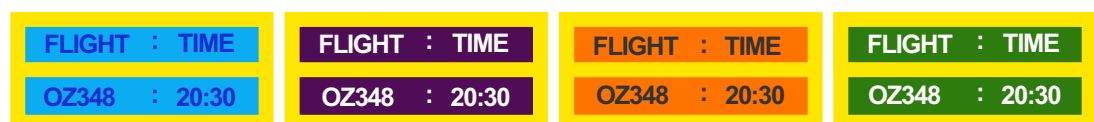
Use 2 colours

Switch between 2 colours every 30 minutes as shown above.

- Avoid combinations of a text colour and background colour of contrasting brightness.  
Avoid using grey as it may contribute to afterimage burn-in.  
Avoid using colours of contrasting brightness (black and white; grey).



- Regular Text colour Change
  - Use bright colours of similar brightness.  
Interval: Change text colour and background colour every 30 minutes



- Move and change text every 30 minutes as shown below.



- Regularly display a moving image along with a logo.  
Interval: Display a moving image along with a logo for 60 seconds after using for 4 hours.
- The best way to protect the product from afterimage burn-in is switching the power off or setting the PC or system to run a screen saver when not in use. Also, Warranty service may be limited depending on instruction guide.

### Correct Disposal of This Product (Waste Electrical & Electronic Equipment)



(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

### Correct Disposal of batteries in this product



(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

## Terminology

### OSD(On Screen Display)

On screen display (OSD) allows you to configure on-screen settings to optimize the picture quality as required. It allows you to change the screen brightness, tint, size and many other settings using menus displayed on the screen.

### Gamma

The Gamma menu adjusts the grey scale that represents middle tones on the screen. Adjusting the brightness brightens the whole screen, but adjusting Gamma only brightens the medium brightness.

### Gray Scale

Scale refers to levels of colour intensity that show variations of colour change from darker areas to brighter areas on the screen. Changes to the screen brightness are expressed with black and white variation, and grey scale refers to the medium area between black and white. Changing the grey scale through Gamma adjustment will change the medium brightness on the screen.

### Scanning rate

Scanning rate, or refresh rate, refers to the frequency of screen refreshes. Screen data is transmitted as it refreshes to display an image, although the refreshing is invisible to the naked eye. The number of screen refreshes is called scanning rate and is measured in Hz. A scanning rate of 60Hz means that the screen refreshes 60 times per second. The screen scanning rate depends on the performance of the graphics cards in your PC and product.

### Horizontal Frequency

Characters or images displayed on the product screen consist of numerous dots (pixels). Pixels are transmitted in horizontal lines, which are then arranged vertically to create an image. The horizontal frequency is measured in kHz and represents how many times horizontal lines per second are transmitted and displayed on the product screen. A horizontal frequency of 85 means that the horizontal lines that make up an image are transmitted 85 000 times per second, and the horizontal frequency is indicated in 85kHz.

### Vertical Frequency

One image is made of numerous horizontal lines. The vertical frequency is measured in Hz and represents how many images can be created per second by those horizontal lines. A vertical frequency of 60 means that an image is transmitted 60 times per second. The vertical frequency is also called "refresh rate" and affects screen flicker.

## Resolution

Resolution is the number of horizontal pixels and vertical pixels that form a screen. It represents the level of display detail.

A higher resolution displays a greater amount of information on the screen and is suitable for performing multiple tasks at the same time.

E.g. A resolution of 1920 x 1080 consists of 1,920 horizontal pixels (horizontal frequency) and 1,080 vertical lines (vertical resolution).

## Plug & Play

The Plug & Play feature allows the automatic exchange of information between a product and PC to produce an optimum display environment.

The product uses VESA DDC (international standard) to execute Plug & Play.

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